

# Defense AT&L



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## Orchestrate, Integrate, Coordinate

Defense AT&L Interviews  
Gen. Norton A. Schwartz, USAF  
Commander  
U.S. Transportation Command

### ALSO

Joint Logistics: Shaping Our Future

Building an Army:  
Project Management in  
Afghanistan

Six Sigma for the DoD

The Five 'P's in  
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Leading Teams: Ten Top Tips  
Performance-based Logistics

Project Blue Lynx  
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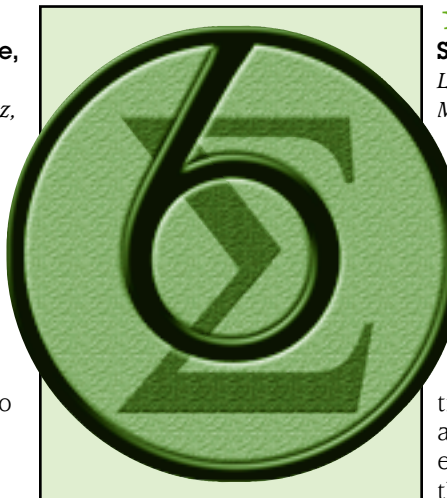
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# Orchestrate, Integrate, Coordinate

*Gen. Norton A. Schwartz, USAF, Commander, U.S. Transportation Command*

**S**upport to the warfighter worldwide is a top priority for U.S. Transportation Command, headquartered at Scott AFB, Ill. USTRANSCOM deploys, sustains, and redeploys warfighters and their supplies and equipment; rapidly transports wounded and injured servicemembers to medical treatment facilities; and supports humanitarian and disaster relief at home and globally.

In September 2003, Defense Secretary Donald H. Rumsfeld designated TRANSCOM as the DoD Distribution Process Owner with additional supply-chain management functions, giving the command greater operational flexibility. In May 2006, Deputy Secretary of Defense Gordon England formally restated the designation in a memorandum whose addressees included the Service secretaries, the under secretaries of defense, the commanders of the combatant commands, the director of the Defense Logistics Agency, and the chairman of the Joint Chiefs of Staff. The memo instructs the USTRANSCOM commander to develop a DoD Distribution Process instruction “defining authority, accountability, resources, and responsibility for process management.”

USTRANSCOM is in a state of significant transformation as it seeks to bring together the components, agencies, and national partners of the Defense Transportation Enterprise to effect a strategic improvement to the defense supply chain.

Leading this effort is Air Force Gen. Norton A. Schwartz, USTRANSCOM commander. Schwartz’s customer orientation keeps his organization focused on their most vital goal: supporting the combatant commanders downrange. On a recent visit to Andrews Air Force Base, Md., the general took time to speak with Bill Kobren, DAU program director, sustainment, about his vision for a horizontal supply chain and his belief in increasing trust and confidence in the distribution process through ever-improving in-transit visibility.

**Q** Gen. Schwartz, from a top-level perspective, how would you summarize the duties and responsibilities of the U.S. Transportation Command?

The major challenges [are] making sure that our system is as responsive as it needs to be; having the right range of tools ... to do the work well; and making sure that we have people who are well-trained, well-motivated, well-led, well-prepared, and ready to go rock and roll.



**A**

They fall into four categories. Fundamentally, the business of USTRANSCOM is to get the shooters to the fight. That's the core purpose. We're likewise engaged in sustaining the forces while they're deployed or in combat—a very important function. The third thing is the air medical evacuation function. That's one of the things of which I am proudest because it is part of the contract. In our volunteer force, it is one of those things that maintain the faith of our troops in the way we function. We make the promise that if someone is injured or wounded in battle, we'll return him or her as rapidly as possible to the best medical care the country can provide. Last, we bring the shooters back home from the fight.

Within the sustainment piece, a very important mission is the distribution process—a mission given to us by the secretary of defense in 2003. We've been working to move beyond the notion that air people do air missions, maritime people do maritime missions, and surface people do surface missions, to a more integrated view. We're looking at the supply chain too as not just acquisition or movement or warehousing, but as a more integrated process to better serve the warfighting commanders.

**Q**

*What do you see as the most pressing short-term challenges currently confronting the U.S. Transportation Command?*

**A**

I think the key thing here for us is making sure that those folks who are carrying the burden—Gen. John Abizaid [commander, Central Command], for example, and his troops—have all that they need. Our goal, as a supporting command, is to make John Abizaid and the other commanders successful and to allow them to worry a little bit less about their backsides and a little bit more about the targets in front of them.

First, we make sure that we have a system that is responsive to those major customers. Second, we ensure that we have the tools to do the job: tools that range from trains and trucks and airplanes and ships, to information technology, to business processes, and so on. We make sure that those are sound and in a process of continuous improvement. It's a challenge every day.

Of course, none of this works very effectively without people who know their business, who are passionate about it, and who get satisfaction out of making others successful. It is important for us to have a cadre of people who have the right tools, knowledge, and preparation.

So those are the major challenges: making sure that our system is as responsive as it needs to be; having the right range of tools (some of which are material and

some not) to do the work well; and making sure that we have people who are well-trained, well-motivated, well-led, well-prepared, and ready to go rock and roll.

**Q**

*Just for background here, how many people are we talking about?*

**A**

In the Transportation Command, there are about 154,000 when you consider all the Reserve and National Guard and the active duty and civilian personnel. A fair number of folks are devoted to this, and I think that we do our work pretty well. We just completed, in the last month, another rotation for Iraq and Afghanistan of more than 100,000 troops. We're at the point where it's almost routine.

**Q**

*You mentioned the DPO—Distribution Process Owner—role that was created in 2003. To quote from the actual memorandum, USTRANSCOM was named as DPO to serve “as the single entity to direct and supervise execution of the Strategic Distribution system” to “improve the overall efficiency and interoperability of distribution-related activities—deployment, sustainment, and redeployment support during peace and war.” How has TRANSCOM had to adapt over the last three years—and into the future as far as planning goes—to meet those new responsibilities?*

**A**

In the old construct, we were concerned with—in the lingo—“port to port.” Our current focus is something much broader than that, the notion of a horizontal view of the supply chain. It is superior to the former view, which was built with silos or stovepipes. If you look at the supply chain horizontally, all the modes of transportation and all the partners in the enterprise (the Defense Logistics Agency, the combatant commanders and their operating components, the Services, and so on), all of those folks, all of the contributors to this national capability, are dealing with it in a synchronized, coherent fashion.

The adaptations we've tried to put in place are to take on this broader view, and to not do it in a way that asserts ownership. I'll give you a case in point: In the early part of 2005, the secretary of defense declared that no unarmored vehicles would operate off protected installations in Iraq. In order to make that possible, lots of things were done. Uparmored humvees—High Mobility Multipurpose Wheeled Vehicles—were collected from many locations and moved by air and by sea into theater. In addition, there were many thin-skinned vehicles that needed modification. So modification centers were set up in Balad, Iraq, and in Kuwait, and teams of welders came from all the Services and from all over DoD, and we moved into 24/7 cycles to equip the thin-skinned vehicles with add-

**Gen. Norton A. Schwartz, USAF  
Commander, U.S. Transportation Command**

**G**en. Norton A. Schwartz graduated from the U.S. Air Force Academy in 1973 with a bachelor's degree in political science and international affairs. He holds a master's degree in business administration from Central Michigan University and is an alumnus of the National War College, a member of the Council on Foreign Relations, and a 1994 Fellow of Massachusetts Institute of Technology's Seminar XXI.



Prior to assuming his current position, Schwartz was director of the Joint Staff in Washington, D.C. He is a command pilot with more than 4,200 flying hours in a variety of aircraft, both fixed wing and helicopters. He participated as a crew member in the 1975 airlift evacuation of Saigon, and in 1991 he served as chief of staff of the Joint Special Operations Task Force for Northern Iraq in operations Desert Shield and Desert Storm. In 1997, he led the joint task force that prepared for the noncombatant evacuation of U.S. citizens in Cambodia.

Schwartz has commanded the 36th Tactical Airlift Squadron, McChord Air Force Base, Wash.; the 16th Special Operations Wing, Hurlburt Field, Fla.; Special Operations Command-Pacific, Camp H.M. Smith, Hawaii; and Alaskan Command, Alaskan North American Aerospace Defense Command Region, and 11th Air Force, all at Elmendorf AFB, Alaska.

Gen. Schwartz has been awarded the Defense Distinguished Service Medal with oak leaf cluster, the Distinguished Service Medal, the Defense Superior Service Medal with oak leaf cluster, the Legion of Merit with two oak leaf clusters, the Defense Meritorious Service Medal, the Meritorious Service Medal with two oak leaf clusters, the Air Force Commendation Medal with oak leaf cluster, and the Army Commendation Medal.

on armor kits. Initially, we flew every one of those add-on armor kits to those locations. There came a point when inventory of the kits in Balad and Kuwait was such that, even with the welders working 24/7, we could shift the mode of transportation from air to surface without interrupting the work pace. So we did that, and we were then able to move the kits into theater at one-tenth the cost.

If I'd had only the perspective of port to port, and not the insight into what the inventory of these kits was, I would have been unable to make the recommendation to Gen. Abizaid that we should ship the mod kits and that it was prudent to do so. When you take a horizontal view, and you look at the thing from when the item comes off the loading dock at the manufacturer, and you have some insight into the remainder of the supply chain as it moves it through theater, you can make intelligent recommendations about how to optimize the use of government and commercial resources and how to best serve—in this case, Gen. Abizaid and the troops that were moving around on the ground. That's one example of this broader perspective that I think is healthy and value-added for the Department and certainly for people who have missions to accomplish.

**Q**  
*So that affects ability at reduced cost.*

**A**  
This isn't all about cost. Clearly, cost is a significant consideration. But in our business, there are times when it doesn't matter what it costs. What we try to do is focus on supporting the person assigned the mission. We're supporting the commander. That process is maturing. Having insight back into the supply chain, into things that remain the domain of defense logistics agencies and the Service agencies and so on, and then forward into the realm where the theater commanders operate, is not intrusive. It's value-added. I think people believe that.

**Q**  
*You mention DLA—the Defense Logistics Agency—and the Service materiel commands and so forth. How has the relationship with those organizations evolved over the last three years?*

**A**  
There was probably some anxiety at the outset. People in Gen. Abizaid's command wondered, why is TRANSCOM at Scott worried about the inventory of armored kits at Balad? Why do they care? But I think as this has matured, there's a recognition that it's not about who gets the credit; it's about providing support.

In the case of DLA, for example, we are partnering on something really big. We're unifying logistics, distribution, and transportation visibility efforts by combining the Integrated Data Environment and Global Transportation Network. GTN is a key system and a tremendous advantage over what we had 10 and 15 years ago. Approximately 10 years ago, Internet capabilities grew exponentially, and that enabled us to evolve the fledgling GTN into one of the first Web-based systems where we could aggregate information from multiple systems and display the information to users on the Internet. GTN is

an automated information system. This automated command and control—C2—system provides in-transit visibility, which is the ability to track the identity, status, and location of passengers and/or cargo moving through the Defense Transportation System.

This is an information technology backbone for the Department at an enterprise level. Previously, DLA had their Integrated Data Environment system for functions they had to perform: acquisition, warehousing, inventory control, order fulfillment, and so on. On the transportation side, we had GTN to do our part of it: transportation, in-transit visibility, delivery receipt, and so forth. But if you take the horizontal view of this from end to end, think of the power: Instead of having brute-force interfaces between these two systems, instead having DLA and TRANSCOM dealing with a common program office, you have an end-to-end backbone system to which the Services can connect and that looks at this whole thing up-front as an enterprise. There's a recognition that this kind of effort will bring value to the warfighter and will ultimately result in a more rational allocation of resources. It will do pragmatic things, like increase the velocity of the supply chain and—very important—increase reliability.



*Will it also increase visibility to the warfighter?*



Without a doubt. In the end, that's really the coin of the realm. ITV—in-transit visibility—has challenged organizations for centuries. We've made tremendous progress, but I know we can—and must—do better.

Many will recall the “iron mountains” of shipping containers during the Gulf War, when GTN didn't exist. You had mountains of supplies and the notion was PUSH! That was the best mechanism we had, that we knew. The truth was, it was a rare thing when we had good insight into what was actually in those mountains of supplies. In a metaphorical sense, today we have “mounds” of supplies, and we have pretty fair insight into what is in them. And it's getting better all the time. In the end, sustainment and our business are about trust and confidence. If people downrange believe that we'll keep our promises, if they believe that when they order and when we say we'll get it to them at such-and-such time and place, they'll be confident that it'll occur; then inevitably, behavior will change. Our supported warfighters won't submit multiple orders for the same item.

Of course, no one in our business believes in just-in-time inventory. No commander is going to go without safety levels of supply if he is facing a thinking adversary. But now, we no longer maintain the mountain of supplies; it's a more precise mound. That's a powerful outcome resulting from in-transit visibility.

The analogy is with UPS: you send me something, and I can track it on the Web, so I know where it is at any point. In that engine there is trust and confidence. That same sort of insight should be available to anybody in the supply chain. Increasingly, it is what we are able to provide, and it's exciting. It's not rocket science, it's not glamorous, but it is fundamental. That's why we're passionate about it.

Another supporting mission focusing on a more streamlined, joint, and reliable supply chain is the work TRANSCOM has done to exercise distribution portfolio management for the Department. Armed with our authority as DPO, we've pulled together the various information systems across the Services and agencies that support and synchronize distribution. Through a very transparent process and method, including capabilities assessments and technical reviews, we've been able to address gaps, seams, and redundancies in the distribution process. The Defense Business System Management Council has approved our subsequent recommendations for investments in information systems to enable the improved processes. The Council, chaired by the deputy secretary of defense, serves as the governing body of the Business Transformation Agency. We've already delivered on the promise to save the Services millions of dollars in systems development while improving overall logistics effectiveness. The result is better connectivity, data quality, and responsive information. This has a cascading impact to warfighters and logisticians alike, making command and control and combat support more effective and efficient.

Again, the point of all of this is warfighter confidence and reliability. We are enabling others to see and act with agility as opposed to *react*.



*With the advent of performance-based logistics, will commercial providers also have the same type of visibility of parts as they are moving through the system?*



Yes. There are a couple of aspects to this. You can have command insight, but it's not for everybody because you don't want the enemy to have it, of course. So one of the things that's different for industry is managing access to information. The GTN is a means to provide the visibility. We have about 6,000 subscribers. It is Web-enabled; people can come in and find out where things are in the process. There are scenarios where perhaps information will be more discreet and we work that accordingly. But the bottom line is that we are almost as much about moving information as we are about moving stuff. In terms of working the trust and confidence, visibility is what enables that.



**Q**

*Regarding different modes for moving materiel, particularly sea-based modes, are you finding that global port issues are challenging your ability to get things in and out of port quickly?*

**A**

The truth is, particularly on the maritime side, global commerce is at an all-time high. Ports, particularly on the west coast, are experiencing record throughput of materiel. An issue for TRANSCOM is to deploy and redeploy forces and materiel through these ports as marshalling space becomes more of a premium requirement.

Infrastructure matters; it is one of the things that I watch closely. In the U.S., it involves the entire network of roads, rail, terminals, and airports. It also involves overseas infrastructure. Where can we berth ships? Where can they transit? Where can airplanes land to refuel? What are the choke points in the network for the various mode operators? These are among the many infrastructure considerations that our TRANSCOM team continually assesses with our supported COCOMs so that our nation can surge to meet their warfighting requirements. We watch reports of natural disasters or labor disputes or things of that nature that could affect our getting our mission done in time. Those things may not be particularly meaningful to others, but for us they're key.

**Q**

*Does that entail any kind of partnerships or innovative arrangements with some of the private sector port or transportation providers?*

**A**

Clearly. A case in point: Beaumont, Texas. There is a relationship between our Service component, the Army's Military Surface Deployment and Distribution Command, and the wonderful people in Beaumont. After Hurricane Katrina, the first people into the port of Beaumont, led by the sheriff, were our people from SDDC because Army equipment in the port that was deploying to support Iraq had remained through the storm. The port manager in Beaumont and the sheriff—who had many things on their minds at the time—prioritized that materiel very highly. They saw its importance to national defense.

It's a partnership. This is the sort of thing that's very important to understand in the surface business, in the maritime business, and in the merchant marine, for example. These people are patriotic, and they understand the significance of what they do and how they contribute. I work every day to listen, to cultivate, to make sure we do this right because the U.S. government could never own all the resources it needs to do this job. Much of what we have, what we rely on, is in commerce; and when we need to surge, we get assistance, at much, much less cost

to the taxpayer. Partnerships with industry are absolutely essential in our business, and I have found industry to be extremely supportive. Now there are some things industry can't do continuously, of course, like lose money—and I appreciate that. But they do their best, truly, to make things happen for us. I think it is a win-win for the country and for industry as well.

**Q**

*Another thing you are very proud of is the DDOCs, or Deployment Distribution Operation Centers. Can you explain a little more about those, and the capability they bring to the warfighter?*

**A**

We used to have entities in theater that were essentially joint movement control centers. They had a pretty narrow focus, mainly on reception and onward movement. It was important work, but we needed to have something that was bigger, that could look at things in a more end-to-end fashion. We wanted to fashion an organization that had connections to and an understanding of what was headed to them, as well as the dynamics and requirements associated with the retail business of distribution in theater, going all the way to the PFC Smiths at the end of the supply chain.

The first DDOC started in Central Command. Each of the commands has one of these organizations, and they're not cookie-cutter operations; they've taken on the flavor of their combatant commanders and the nature and requirements of their specific theaters. They provide an organization with the people with the tools and connectivity to look at everything involved in distribution, to reach back to DLA and the Service materiel providers in the United States, to those who orchestrate the transportation, to those who receive it in theater; and then, ultimately, they deliver it to the end user. It has worked pretty well. The example I gave you earlier about the armor kits for the humvees—that really was the work of the CENTCOM DDOC, which works for Gen. Abizaid and his J4, so it is not a TRANSCOM sort of insert. Through the years, it has become an integral element within the CENTCOM architecture. It's also true in the other commands.

Interestingly enough, during Hurricane Katrina, the NORTHCOM DDOC wasn't yet mature, and so we helped Adm. Tim Keating [*who led the NORTHCOM civil support mission to provide hurricane relief*] and we ended up deploying a 20-person DDOC to Ft. Gillem, Ga., to assist. To put it in understandable terms, their mission was to ascertain the following: Where were the cases of water? What routes were they taking? What platforms? Where were the MREs? What loading docks were they coming off? What routes should they follow, and where were the handoff points? Where were we going to deliver this materiel—where did the Federal Emergency Management

Agency want it? Part of this is that you've got a pool of people who understand: airmen who think about sealift, sailors who think about airlift, surface folks who think about both. So this is not about functional solutions, it is about integrated solutions and putting them in place.

**Q** *Would it be fair to say that they are the primary face of TRANSCOM to the warfighter?*

**A** It's a major face; in the operational sense, it's certainly our primary face. But in the planning sense, in preparing for war, we have another. It has to do with our focused warfighter effort at the command and is also a prelude to the coming Base Realignment and Closure efforts.

We were once organized along functional lines, by which I mean you had an air cell, a maritime cell, and a surface cell. If you organize that way, what kind of transportation solutions is the air cell going to give you? An air solution, of course. What we decided to do instead was organize along cells, but one for each combatant command. The colonel who runs that cell will be known to that theater; that's the person—the belly button—for the commands. In that cell, we work all of the theater requirements. For us, a focus on the region is important and that is how we've organized ourselves.

**Q** *Another mission you have undertaken is the Defense Transportation Coordination Initiative—DTCI. Can you tell us a bit about that?*

**A** Industry has discovered that transportation is a cost driver and has tried to manage those costs. One way that's proved very successful is the so-called third-party logistics firm, a world-class logistics management capability that can come in and essentially run a transportation business for any company. About 82 percent of the Fortune 500 firms use these kinds of services. The DoD is several years behind industry practices and needs to act to capitalize on commercial advances. Industry has experienced cost savings ranging from 7 to 15 percent through partnering with transportation service providers. That kind of partnership provides people who are truly experts at consolidating loads, at providing predictability and reliability, at choosing the best modes and routes for transportation, and so forth. There's a science to it, and there are some firms that do it very well.

Perhaps having a third-party logistics provider run DoD freight movements in the continental United States makes sense. I think it does. We are excluding certain categories of freight—household goods, for example, and ammo, specialized kinds of things—but for routine freight movements, the notion is we can do better by orchestrating this at the enterprise level, not necessarily at the installation level. We put out a solicitation last month [March] and we expect replies from industry in the August timeframe. If all goes according to plan, by the end of the first quarter of fiscal year 2007, we will have a third-party logistics provider of some considerable reputation helping us to orchestrate freight movement in the United States. It will start small at DLA depots, and then over time, it will expand to other locations around the country. Of course, DLA is a major partner in this. The idea is that we will have an optimized freight movement process for DoD in the continental United States, and that will bring savings back to the Services that ultimately pay for this support.



A very important mission is the distribution process. We've been working to move beyond the notion that air people do air missions, maritime people do maritime missions, and surface people do surface missions, to a more integrated view.

While this is common in business, it's new in our domain. DoD isn't like Wal-Mart or Home Depot in every respect, to be sure. We understand that there are unique aspects for our freight, but the idea is that here's another way for us to manage costs—and transportation is a cost.

**Q**

*Are there other initiatives you've undertaken since the advent of the DPO, and even before that, in terms of leveraging the capabilities of the commercial sector and what they bring to the table?*

**A**

As implied earlier, the government couldn't do all this by itself, nor does it want to. On both the maritime and air sides, we have very substantial capabilities and arrangements with industry to come surge with us when the need arises. I think this has proved vitally important over time, as recently as the advent of Operation Iraqi Freedom. We will continue to use our commercial partners intensively because they're part of the team. It's important. Part of my role is to keep an eye on those industries, to recognize when the things that we do make it more difficult for them to provide national security services, and so on, and we work those issues as they arise. That's a key area of partnership that will certainly continue. DTIC, I believe, is another area where we are certainly reaching out to industry.

**Q**

*How do you see The new ID requirements impacting operations?*

**A**

Well, we talked about in-transit visibility. The way for that to occur is through various means of automatic identification technology. As you are aware, there are different ways to do radio frequency ID: classic "active" modes, which typically have brick-sized tags that many of your readers may have seen; or the somewhat newer "passive" modes, which are not quite barcodes, but similar. "Active" allows you to read stuff from about 300 feet away, in round numbers. "Passive" provides you that ability within maybe 10 feet. The bottom line is that RFID gives you insight into where containers might be, where pallets are, where boxes are. Increasingly, we are deploying this technology. We have a number of pilot programs to demonstrate the benefits of active versus passive RFID and to integrate that into the backbone data systems. This information needs to show up in a fashion that enables decision makers to make informed choices. The focus is on trying to get our arms around what I call these "thousand points of light" and try to bring some coherence to this. I am doing this with our partners from the Office of the Secretary of Defense so that what we end up with is not a hodge-podge of RFID. The data need to go to the right places so we can use them to the best effect.

TRANSCOM's going to act as the quarterback and bring value to the supply chain as a result.

**Q**

*In the same vein, you have certainly seen the Defense Science Board's recent summer study on transformation and its recommendation for a joint logistics command. Thoughts on that?*

**A**

I know there are those who believe in traditional hierarchical organizations. They've worked in the past, so it's understandable that the DSB would see some promise in that. There are other models, though, and I think that the "supporting and supported" model has equal merit. In industry, it is well understood now that you don't have to own stuff to get it to perform. I believe that. Our focus is not to assert our dominion, but rather to recognize that we have a mission assignment—in this case, the distribution process. We can do it through collaboration and partnership and the power of our passion, and that's how we propel this process along. I know the DSB suggested that you cannot accomplish what is needed without command relationships and this sort of dominion, but I think we can accomplish a lot. There are some downsides to asserting dominion, and I am not sure that they are fully appreciated.

**Q**

*So it would be fair to describe your vision of TRANSCOM as a sustainment and distribution integrator?*

**A**

Yes. The idea is to try to orchestrate, integrate, coordinate, and do it in a way that puts the focus where it belongs: not on the logistics community or the logistics enterprise, but on the supported commander. We need to recognize that all of us are in this business to make Gen. Abizaid successful. If we have that as the first imperative, there is much to be accomplished.

**Q**

*You recently said that the DoD is in "surge" mode, and you stated that when the global situation returns to a peacetime mode, you are concerned with maintaining the readiness on the organic force and having enough work for commercial partners so that they will still be around to surge with us when we next need them in wartime. How does USTRANSCOM try to achieve this balance? What efforts are being made to reach out to industry and ensure they are retaining the necessary commercial capabilities?*

**A**

Managing the Defense Transportation System is a continuous process of managing sometimes competing interests and constantly refining the sweet spot in the mix of organic and commercial lift. We are heavily engaged

today with our organic platforms in direct support of combat operations in Iraq and Afghanistan. This surge in operations spills over to our commercial partners as they support the transoceanic portions of air and sealift. However, in peace and war, USTRANSCOM supports the secretary of defense's directive that DoD shall, to the maximum extent, use commercial U.S. flag capacity if such shipping can be expected to be available to meet DoD's operational requirements.

The Civil Reserve Air Fleet is made up of commercial civilian air carriers who volunteer on an annual basis to make their aircraft available to the U.S. Armed Forces in return for the Department's peacetime airlift business. The air carriers are paid no extra incentives or premiums, and no laws exist to compel their assistance or nationalization. Awarding sufficient guaranteed amounts of the Department's peacetime business has been an effective incentive to convince air carriers to commit airplanes to the Civil Reserve Air Fleet program for more than 50 years.

Annually, the Department awards all its known airlift requirements to the participating U.S. air carriers in proportion to the number of airplanes they commit to the program. This guaranteed amount of business is used by the air carriers to obtain financing for operations, improvements, and expansion of their fleet. As additional airlift requirements are identified throughout the year, these too are awarded under this contract to the carriers in proportion to their commitment to the program.



*In the same vein, you recently advocated purchasing additional C-17 Globemaster III aircraft beyond the 180 currently on order. Can you share why you believe this is necessary, and what short- and long-term impacts you see on USTRANSCOM and the U.S. industrial base if the additional aircraft are not procured?*



In determining whether or not to procure additional C-17s, we must look at a variety of information.

First, the final report of the Mobility Capabilities Study, which has been in progress since spring 2004, has been released. The study has advanced our knowledge of national mobility requirements and is a data point upon which we will continue to make decisions about the proper mix of organic mobility platforms. The study said a fleet of 292 large airplanes provided about the right capacity for the missions that we foresee at moderate risk.

Second, the C-17 is being used in a capacity and at a rate never before anticipated. We are consuming airframe life at a rate greater than we planned. For example, we are using the C-17 in a tactical airlift role in Iraq and Afghanistan. It is fulfilling a portion of missions previously flown by the C-130. Which brings me to the third point.

A third of our combat delivery C-130 fleet are nearing the end of their service life. These Vietnam-era workhorses are facing structural fatigue cracks in their center wing boxes. Let me take you back to the U.S. Forest Service C-130 fighting fires in Yosemite, Calif., in June 2002. The airplane was making a fire-retardant drop over a mountain valley when the wings separated from the fuselage. Close examination of the video revealed that the right wing folded upward first, followed by the left wing about one second later. Examination of the center wing box revealed a 12-inch long fatigue crack. That remains etched





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in my mind when I ask our young airmen to fly missions in support of worldwide operations.

Finally, the C-17 has been accomplishing yeoman's work in the strategic airlift business. As has recently been reported, the C-17 has flown its millionth hour, the equivalent of flying every minute of every day continuously for more than 114 years. In the strategic airlift business, the C-17 and C-5 are working harder than ever before. The C-5 has a niche market; the C-17 doesn't. However, the C-5 is facing reliability challenges. Over the past five years, its mission-capable rate has never exceeded 67

percent, which is below our wartime goal of 75 percent. So we're currently undergoing a modernization and re-engining effort that will allow it to achieve or better this 75 percent goal. To date, 12 C-5s have successfully undergone the first phase of modification, and we have flown more than 600 operational hours with eight of those aircraft. Success of the second phase, re-engining, will not be known until operational test and evaluation is complete at the end of fiscal year 2008. By that time, the 180th C-17 will have been delivered.

With those factors and others in mind, I favor immediate funding for about seven additional C-17s. This should be considered a cost-of-war issue and be included in the upcoming supplemental spending bill.

**Q** *From an acquisition perspective, what are some of the TRANSCOM capabilities and responsibilities that the acquisition community in general—the PEOs, the program managers, the logisticians, and the program offices—should know about?*

**A** Reliability, transportability, packageability—all the “-abilities.” The thing here is in the design and acquisition process. What we want to do is minimize inventories. We want to have those effects on the supply chain that support the troop on the far end. The acquisition process should look at ways to minimize sustainment, not to make it a more demanding system. Less is better. Less is also better in terms of transportability. The idea is, again, weight, size, durability, reliability; those imperatives are very important from our point of view in getting the shooters to the fight and sustaining them while they are engaged. To the extent that those who design and field resources for defense can pursue those imperatives, it is certainly helpful to me in our line of work and certainly to the shooter downrange. My appeal to the acquisition community would be to think about supply chain issues as they do their work.

**Q** *Is there anything else you'd like to add?*

**A** The key point is that we're truly about trying our best to make others successful. We're trying to bring value to combatant commanders who carry the burden and to their Service components, to their Services, who have such an intense interest in the outcome. We want to provide a bit of vision here on the path that I think we need to follow. It is fun. It is exciting. I hope that you and your readers get a sense that we are really serious about trying to improve business process, to bring value to the Services and the Department. That comes down to managing cost and delivering for the guy who really counts—that staff sergeant in Fallujah, Iraq. It's all about the warfighter.

# Joint Logistics: Shaping Our Future

*Lt. Gen. C. V. Christianson, USA*

**T**he logistics capacity of the U.S. military today is unmatched; our nation's ability to project military power gives the joint warfighter unprecedented capabilities. However, a constantly changing operating environment and resource constraints demand that we optimize joint logistics to enhance our capabilities for tomorrow. We have the opportunity to significantly advance our systems, processes, and organizations to improve support to tomorrow's joint force commander (JFC), and we must seize it.

## Joint Logistics: The What and the Why

The necessity of joint logistics is widely accepted throughout the Department of Defense logistics community, and no one I know would disagree that the effective delivery of logistics support is essential to the JFC, our ultimate customer. However, I believe our current logistics systems reflect many inefficiencies, unnecessary redundancies, and process gaps that increase both risk and cost. Achieving harmony between and among Service- and agency-funded missions, systems, processes, and programs will resolve today's inefficiencies, but it poses a significant challenge. Overcoming that challenge can be enabled with a common agreement and understanding of the purpose of joint logistics and answering the questions "What is joint logistics?" and "Why do we need it?"

Joint logistics is the deliberate or improvised sharing of Service logistics resources to enhance synergy and reduce both redundancies and costs. We need joint logistics because (especially during initial expeditionary activity) the Services, by themselves, seldom have sufficient capability to independently support the JFC. By sharing, we can optimize the apportionment of limited resources to provide maximum capability to the supported commander. The overall purpose of joint logistics is to achieve logistics synergy—getting more out of our combined resources than they offer individually.

## The Joint Logistics Environment

The global war on terror, other threats to our security, frequent and diverse commitments across the globe, and complex interagency/multinational operations characterize the joint logistics environment. Future operations are likely to be distributed and to be conducted rapidly and simultaneously across multiple joint operational areas within a single theater or across boundaries of more than

**“Leaders win through logistics. Vision, sure. Strategy, yes. But when you go to war, you need to have both toilet paper and bullets at the right place at the right time. In other words, you must win through superior logistics.”**

Tom Peters, “Leadership Is Confusing As Hell,”  
*Fast Company*, March 2001

one geographic combatant command. In this environment, force projection operations give our nation the ability to close the gap between early entry and follow-on combat operations, and simultaneous stabilization and reconstruction operations. The requirement to integrate sustainment and force projection operations in a complex operating environment presents the greatest joint logistics challenge. This environment spans strategic, operational, and tactical levels, and provides the context in which we must deliver the “effect” expected by the JFC from joint logistics.

That effect is freedom of action, and it is delivered in the tactical level. The tactical level is where we should measure success, and operational readiness is the desired outcome. Sustained joint operational readiness enables freedom of action, and it results from the effective integration of all logistics capabilities. Logistics readiness achieved in the tactical level results from the cumulative efforts of Service, agency, and other logistics players across the entire joint logistics environment. There is a high price to pay in the tactical level for inefficiencies in the strategic or operational levels.

The United States' ability to project and sustain military power comes from the strategic level. This national

*Christianson is the director for logistics, the Joint Staff, Washington, D.C. He assumed his duties in October 2005.*

system enables sustained military operations over time and leverages our most potent force multiplier: the vast capacity of our industrial base. At this level, modern, clearly defined, well-understood, and outcome-focused processes drive efficiencies across Service, agency, and commercial capabilities. Robust and efficient global processes combined with agile global force positioning are fundamental to joint logistics reform and to our ability to maintain global flexibility in the face of constantly changing threats.

The operational level is where the JFC synchronizes and integrates joint operational requirements with the national system. Here is where joint logistics must excel and where the ability to fully integrate logistics capabilities provides our greatest opportunities. The operational level is where the joint logistician must bridge Service, coalition, agency, and other organizational elements/capabilities, linking national and tactical systems, processes, and organizations to enable the freedom of action the JFC expects. The essence of joint logistics is in the operational level, and it is here that the joint logistics community should focus effort.

### **Strategic Relationships**

Effective joint logistics depends on clear roles, accountabilities, and relationships between the global players within the joint logistics domain. The collaborative network of relationships between these players should be based on the pre-eminence of the Services. By law, the Services are responsible to raise, train, equip, and maintain ready forces for the JFC, and they lie at the heart of this collaborative network. Service logistics components form the foundation of the joint logistics network and are responsible to maintain systems life-cycle readiness. Thus the Services act as defense systems readiness process owners, and they are the supported organizations for logistics readiness. In this capacity the Services focus on their product: logistics readiness at best value.

The Services and the Defense Logistics Agency share responsibilities as defense supply process owners. In that shared role, they are supporting organizations to the components of the joint force for logistics readiness. The Services and DLA are responsible for supply support and, supported by the distribution process owner (DPO), are focused on their product: perfect order fulfillment.

United States Joint Forces Command serves as the joint deployment process owner, and is the primary conventional force provider. In this role, USJFCOM, through its Service components, ensures the supported commander is provided with the forces needed to achieve national objectives. USJFCOM is responsible to coordinate and make recommendations for the global conventional force and, supported by the DPO, is focused on its product: perfect capability fulfillment.

United States Transportation Command serves as the defense DPO and is the supporting organization to DLA and the Services for the movement of sustainment, and to USJFCOM for the movement of forces. USTRANSCOM coordinates and synchronizes the defense distribution system and is focused on its product: time-definite delivery.

The JFC, through the Service components, is the ultimate customer of the joint logistics system. The JFC has authority over joint logistics resources in his/her area of responsibility and is the principal focus of the national organizations described above. These organizations have global responsibilities and form the backbone of joint logistics. They exist to provide and sustain logistically ready forces to the supported JFC. I view them as global providers, responsible for the end-to-end synchronization and coordination of processes that deliver outcomes to the supported JFC. These global organizations should constantly strive to improve their capabilities in concert with each other, integrating deployment/redeployment, supply, distribution, and readiness processes to ensure the supported commander receives both forces and logistics sustainment on time and where needed.

Because the Services lie at the heart of the joint logistics network, the joint logistics community (processes, systems, programs, organizations) should measure “value” from the perspective of the Service components of the JFC. Every logistics program, system, and initiative should be viewed within the framework of these critical strategic relationships and measured by its ability to support the effect we are expected to deliver.

### **Imperatives for Success**

The supported JFC expects joint logistics to give him or her freedom of action—to enable the effective execution of the mission, according to his or her timetable. The value of joint logistics is in its ability to sustain joint logistics readiness, and we can measure that value by how well we achieve three joint logistics imperatives: unity of effort, domain-wide visibility, and rapid and precise response. These imperatives are not goals in themselves, but they define the outcomes of a confederation of systems, processes, and organizations that are agile and effectively adapt to a constantly changing environment to meet the emerging needs of the supported JFC.

Unity of effort is the coordinated application of all logistics capabilities focused on the JFC’s intent, and it is the most critical of all joint logistics outcomes. Achieving unity of effort requires the optimal integration of joint, multinational, inter-agency, and non-governmental logistics capabilities. It is built around three enablers.

- **Appropriate organizational capabilities and authorities** provide the means to effectively and efficiently execute joint logistics.

**“The end for which a soldier is recruited, clothed, armed, and trained, the whole objective of his sleeping, eating, drinking, and marching is simply that he should fight at the right place and the right time.”**

Maj. Gen. Carl von Clausewitz, *On War*, 1832

- **Shared awareness** across the logistics domain drives unity by focusing capabilities against the joint warfighter’s most important requirements. The effective integration of priorities, and the continuous optimization of those priorities in space and time, are key tasks requiring shared awareness.
- **Common measures of performance** drive optimization across processes supporting the JFC. Clearly defined joint logistics processes, well-understood roles and accountabilities of the players in the processes, and shared JFC metrics frame this enabler.

Domain-wide visibility is the ability to see the requirements, resources, and capabilities across the joint logistics domain. Three fundamental enablers frame the ability to achieve this imperative:

- **Connectivity**, offering access to the network 24 hours per day, 365 days per year and reaching globally—back, forward, and laterally—throughout the network to synchronize and coordinate efforts of supporting DoD agencies, interagency participants, multinational partners, host nations, contractors, and commercial sector participants is key.
- **Standard enterprise data architecture** is the foundation for effective and rapid data transfer and forms the fundamental building block to enable a common logistical picture and high logistical situational understanding, which in turn fosters warfighter confidence.
- **A global focus over the processes** that deliver support to the JFC is paramount to optimizing joint logistics. Logistics support to the joint force is global business, and any view of joint logistics that operates below this level will suboptimize processes and deliver less-than-acceptable readiness.

Rapid and precise response is defined by the ability of the supply chain to effectively meet the constantly chang-

ing needs of the joint force. Lack of key supplies (regardless of the reason for the lack) acts to undermine readiness and increase mission risk. The following performance measures indicate how well the supply chain is responding to the needs of the JFC:

- **Speed** is the core of responsiveness and, to the JFC, its most critical aspect. Ideally, all logistics would be immediately available all the time, but that is not possible. In measuring speed, we should focus our efforts on what is “quick enough,” while recognizing that not all supplies are equal in importance. Items that truly drive readiness deserve special treatment.
- **Reliability** is the ability of the supply chain to provide predictability, or time-definite delivery. When items are not immediately available, the joint logistics system must provide immediate and accurate estimates of delivery to enable the warfighter to make decisions regarding future mission options.
- **Visibility** provides rapid and easy access to order information. A sub-set of domain-wide visibility, this feature fundamentally answers the JFC’s questions, “Where is it?” and “When will it get here?”
- **Efficiency** is directly related to the supply chain’s footprint. At the tactical and operational levels, footprint can be viewed in terms of the resources needed to compensate for inefficiencies within the supply chain itself.

### **The Need for Joint Logistics**

Joint logistics exists to give the JFC the freedom of action necessary to meet mission objectives. We deliver this effect by integrating all logistics capabilities within the operational space, bridging the strategic sustainment base of our nation to the complex tactical environment in a way that optimizes logistics readiness. Through rigorous self-assessment, discussion, analysis, and collaboration, we can make significant progress towards improving our ability to deliver logistics readiness.

It is important, however, to continue to move forward with programs and initiatives that truly support joint logistics. We cannot wait to make decisions until every issue is resolved. Viewing initiatives through the lens of the imperatives above should offer a reasonable starting point for assessing an initiative’s value. The challenge of integrating Service and agency programs and systems not designed to holistically support joint operations cannot be overestimated. However, the importance of achieving this integration is paramount. We have a responsibility to the American people and the next generation of soldiers, sailors, airmen, Marines, and Coast Guardsmen to do better—much better.

Comments and questions should be addressed to [philip.greco@js.pentagon.mil](mailto:philip.greco@js.pentagon.mil).



# Building an Army

## Program Management in Afghanistan

*Lt. Col. William T. Cooley, USAF ■ Lt. Col. Brian C. Ruhm, USAF ■ Maj. Adrian Marsh, USA*

Since the fall of the Taliban in December 2001, the U.S. government has been rebuilding Afghanistan's infrastructure, institutions, government, and army. More than just supplying weapons and supplies, the United States and its coalition partners are building a security infrastructure that includes operational forces, sustaining institutions, and the general staff and ministry that direct those forces and institutions. The Combined Security Transition Command - Afghanistan (CSTC-A) (formerly the Office of Security Cooperation - Afghanistan) is currently re-forming and building both the Afghan National Army (ANA) and Afghan National Police (ANP). Success in those endeavors is critical to long-term U.S. security; however, the organizations dedicated to the tasks have overlooked and underused a potentially important component of their staffs—trained acquisition program managers.

These staffs are flush with operational expertise, but they are typically short of personnel familiar with designing and developing complex systems. Building complex security forces uses many of the same processes found in complex weapon system development. Security systems are composed of numerous interrelated subsystems (personnel, logistics, medical, communications, etc.) that must be integrated. It is also similar in that certain activities must precede others, and the phasing of developmental activities must be carefully mapped out in order to produce the right effects at the right time. Decision makers need to understand their desired end state and the sequence and integration of events that will get them there within budget and on schedule. This is familiar terrain for program managers, and they should be included as an integral part of the security assistance staff in places like Afghanistan.

### Importance of a Baseline

The accepted standard for managing large acquisition programs includes a documented baseline. The acquisition program baseline (APB) is the contract between the customer and provider regarding cost, schedule, and per-



Group of ANA soldiers on a road march during their basic training at Kabul Military Training Center.

Photograph by Col. Mike Therrien, USAF.

formance. Experience at CSTC-A indicates that a documented baseline is not only useful in decision making as excursions are considered, but it is arguably essential for communicating with external and internal audiences.

### Scrutiny- and Oversight-based Requirements

Large-scale security assistance programs are subject to constant and justifiable scrutiny and oversight from DoD

**Cooley** spent six months in Kabul, Afghanistan, and returned to the Directorate of Space Acquisition, Headquarters Air Force. He holds a doctorate in physics from the Air Force Institute of Technology and will enter the National War College this summer. **Marsh** served as the deputy director, Interagency Resources Cell in Kabul. He is an Army Acquisition Corps officer currently assigned to PEO-EIS, working in the AKO Program Office. **Ruhm** was deployed to Kabul as a member of the former Combined Forces Command Office of Security Cooperation from June to November 2005 and is currently the program manager of the Air Force Distributed Common Ground System Increment 10.2 Program at the Air Force Electronic Systems Center, Hanscom AFB, Mass.

security assistance program organizations, Services, the Office of the Secretary of Defense, the Office of Management and Budget, and interagency stakeholders. Communicating clearly with these external audiences is a constant challenge for organizations like CSTC-A, not only because of the time zone difference, but also because of the operational environment and personnel turnover. The added challenge of changing priorities and adjusting to an ever-evolving security situation further frustrates both oversight and execution officials. A well-documented APB improves communications between these groups by providing a means to depict not only the desired end state, but also the strategy to get there. Once an APB is in place, it also provides internal planners and external audiences with a consistent and agreed-to frame of reference to consider implications of changes to budget or schedule.

In terms of the external audience, Congress is a special case and merits special attention. Along with all federal funding, security assistance funds are appropriated by Congress, so the importance of clearly communicating the funding requirements within the context of the na-

ommendation of the GAO was to “develop detailed plans for completing and sustaining the Afghan army and police forces, including clearly defined objectives and performance measures; milestones; funding requirements; and a strategy for sustaining the results achieved” Although a baseline did not exist when the GAO performed their audit, one was established that documents the elements cited by the GAO, and it is incorporated into joint planning groups as we explore options to adjust to the changing situation. The baseline is a vital tool to explain, justify, and defend the requirements and rationale for funding requests, and to ensure Congress maintains sufficient insight and oversight.

### Other Uses of a Baseline

An additional use for the well-documented baseline is continuity—a valued commodity where there is high personnel turnover. In a deployed environment where nearly all assignments are four to 12 months, minimizing the time spent learning a new job is vital. The APB provides a roadmap that incumbents at almost any level can use with their successors to say, “You are here, and this is the

path to where we are going, and here are the reasons why.” A clear, easily understood baseline aids the process significantly.

Finally, a baseline aids decision making by providing a documented, known, and understood starting point and context for analysis. Good decision making in the military is very often a result of using the rigorous and often-employed Military Decision Making Process; such was the case at CSTC-A. The MDMP requires clear facts and assumptions. A baseline provides easy access to facts and assumptions and, more important, provides the context for intelligent evaluation of alternatives during course of action development and selection.

### Tools of the Trade

In addition to the program baseline, acquisition PMs bring a wide array of tools and processes to the security reconstruction environment. The rigor and structure PMs are accustomed to imposing on a project make them especially valuable members of the security assistance team.

### Program Schedules

Among those tools, program schedules are the most basic. When dealing with complex systems with numerous linked and interdependent subsystems, a schedule is a useful and (arguably) critical management device. Security-assistance and nation-building programs are usually organized according to functional specialties. CSTC-A has



ANA soldier preparing to fire an artillery round during training. Photograph by CSTC-A public affairs staff.

tion-building effort cannot be overstated. The Government Accountability Office provides independent oversight for Congress, as they did in their June 2005 report on Afghanistan to the House Committee on International Relations (*Afghanistan Security: Efforts to Establish Army and Police Have Made Progress, but Future Plans Need to be Better Defined*, GAO-05-575). A key finding and rec-

# **THE COMBINED SECURITY TRANSITION COMMAND - AFGHANISTAN IS CURRENTLY RE-FORMING AND BUILDING BOTH THE AFGHAN NATIONAL ARMY AND AFGHAN NATIONAL POLICE. SUCCESS IN THOSE ENDEAVORS IS CRITICAL TO LONG-TERM U.S. SECURITY.**

U.S. teams dedicated to developing ANA personnel, intelligence, operations, logistics, acquisition, medical support, communications, education and training, and other functional subsystems that together compose the ANA. Until recently, however, CSTC-A leadership had only limited insight to the details of each and to the linkages and the critical interdependencies among these stovepipe activities.

Program managers introduced scheduling tools (in this case Microsoft® Project) to develop a five-year schedule organized by functional area, explicitly depicting linkages between activities that crossed functional boundaries. The schedule highlighted instances where linked activities fell along the critical path or where margin existed. Senior decision makers were provided a means to make better resource allocation decisions because they not only understood the interdependencies, but they could also see whether they were directing resources towards activities that fell along a critical path.

Many of the functional area specialists and operational personnel on the CSTC-A staff were reluctant to use a Gantt chart approach to security assistance program planning. In contrast, the few PMs on the CSTC-A staff understood the benefits to be realized from taking the time to build a comprehensive, long-term schedule. More important, because the PMs were accustomed to using tools like Microsoft Project on a routine basis in their regular assignments, they were able to work with the functional area specialists to capture their understanding of sequenced activities, duration, and interrelationship to assemble the collection of schedules into a cohesive program baseline.

## **Trade Studies**

In addition, trade study and cost-benefit methods also translate well to the security assistance arena. Acquisition program managers spend much of their time making decisions regarding trades between system cost, schedule,

and performance. Security assistance program managers operate in a similar environment. Given a fixed budget, decision makers in regions like Afghanistan have to choose between growing forces as quickly as possible but sacrificing quality, and slowing down the rate of growth to improve training, equipment levels, and sustainment capability.

Security assistance program managers also need to make internal subsystem trades. CSTC-A committed substantial resources to build a robust ANA medical system and train ANA medical personnel (one of only three

currently recognized ANA military occupational specialties, the others being “soldier” and “cook”). Investments in the medical sector came at the expense of funds for ANA operations, combat equipment, and soldier training. This investment decision reflected classic trade-study methodology. CSTC-A determined that the marginal utility, in terms of operational capability, derived from the last dollars spent on medical capabilities outweighed the marginal benefits derived from additional funds for equipment, operations, or training in other sectors. PMs are accustomed to addressing these “last dollar spent” questions in order to derive maximum performance and capability from a fixed program budget.

## **Capability Milestones**

The CSTC-A experience highlights another useful tool that PMs bring to bear on security assistance programs—capability milestones and spiral development strategies. A common challenge for PMs is assessing where to direct additional resources or reduce resources if required. In a multifaceted system like the one under consideration, deciding how to pace investment in the subsystems is not trivial. Understanding and linking capabilities with investments provide a means to make resource decisions. We’ve already discussed how a comprehensive security assistance program schedule can help with identifying critical paths via the subtle and not-so-subtle links between elements. Capability milestones, introduced at CSTC-A in July 2005, aid PMs further by expressing, from a holistic perspective, the incremental improvements in capability that activities and expenditures will provide at specific points in time.

Capability milestones allow the PM to express the overall capability improvement and value-added from each of the individual activities within a system. Capability milestones also enable senior decision makers to quickly gauge whether their overall resource allocation strategies are appropriate and whether subsystems associated with a large-scale security assistance program will be capable



of supporting one another. To draw an analogy to Air Force weapons systems, it makes little sense to invest heavily in precision targeting capabilities without a synchronized delivery system to get the weapon to the desired target. Likewise, it makes little sense for a security assistance program to deliver, say, an advanced communications capability well before the education and training systems are in a position to produce qualified operators. Capability milestones improve alignment between the disparate subsystems that make up a large-scale security assistance program.

**GIVEN A FIXED BUDGET, DECISION MAKERS IN REGIONS LIKE AFGHANISTAN HAVE TO CHOOSE BETWEEN GROWING FORCES AS QUICKLY AS POSSIBLE AND SACRIFICING QUALITY, OR SLOWING DOWN THE RATE OF GROWTH TO IMPROVE TRAINING, EQUIPMENT LEVELS, AND SUSTAINMENT CAPABILITY.**

### **Not Just Another Acquisition Program**

Security assistance programs benefit from the application of acquisition management tools and techniques, but they also differ from traditional, technology-centric acquisition programs in important ways. Seasoned PMs who anticipate an environment and processes similar to those associated with a typical system program office are in for a rude awakening.

### **Security Environment**

The security environment drives the most important difference between traditional acquisition programs and today's large-scale security assistance programs. In Afghanistan, the United States and its coalition partners needed to develop and deploy an indigenous security system as rapidly as possible to confront existing threats. As a result, less time was available for the extended concept development process that typically takes place in the early phases of an acquisition program. Similarly, there was no time for subsequent design, development, and deployment phases and their associated reviews and milestones. Security assistance in environments like Afghanistan requires that combat capabilities and their sustaining institutions be in place even as their underlying structures, support, and policies evolve. Basic operational, personnel, logistics, intelligence, communications, medical, and other systems are typically fielded in rough form as quickly as possible and then evolve and grow into more mature and capable systems.

Huge complications arise from the parallelism inherent in this approach, but the simultaneous design, development, deployment, and testing of systems is not entirely without precedent in the defense acquisition arena. In many respects, building and fielding a national security apparatus in Afghanistan resembles an Advanced Concept Technology Demonstration program. Like an ACTD, the fundamental design and organization of the Afghan security system is based on a mature technology and a prototype

design—typically an amalgamation of indigenous and U.S. organizational schemes, processes, and systems. Successful implementation of this design requires that decision makers and PMs adopt an unusual design philosophy. Rather than focusing on fielding a complete, coherent design, they need to prioritize their requirements and ensure that operational forces and sustaining institutions—the subsystems of a national security system—develop in phase with one another. In the Afghanistan case, priority was initially given to fielding ANA troops to provide a visible presence and security prior to the presidential election in October 2004 and the parliamentary elections in September 2005. This operational imperative desynchronized the fielded forces with sustaining institutions—logistics, medical, personnel, and training, in particular—needed to maintain readiness. CSTC-A was able to overcome the lag in sustaining institutional capability through a bridging strategy that saw them apply coalition forces, embedded trainers, and contract services to address ANA sustainment shortfalls. Once past the presidential and parliamentary elections, however, CSTC-A instituted a slowdown in ANA combat battalion production to bring the operational and sustaining capabilities back in line, reducing the reliance on U.S. and coalition support and reducing costly bridging capabilities.

### **Social and Cultural Considerations**

Another factor that distinguishes large security assistance programs from traditional defense acquisition programs is the influence of social and cultural traditions. Most experienced PMs have worked within different acquisition organizations or have moved from a single-Service to a joint environment and have grown accustomed to adapting to different institutional cultures. There are at least two reasons why cultural and social traditions play a much more prominent role in the Afghan security assistance program. First, there are fundamental differences between western and non-western patterns of leadership and behavior. In a society where there is greater defer-





## From Our Readers

### **“Speed it Up” and “Successful Presentations”: On the Mark**

Thanks to Capt. Mounce for his delightful article “To Speed It Up, Size It Down,” in the May-June 2006 edition of *Defense AT&L*. I agree completely. One of my favorite stories is how Charles Lindbergh’s plane, the Spirit of St. Louis, was completed in about three months from scratch. Wow! And it was successful. I wonder how “mega-projects” ever have a chance.

I appreciate Mounce’s candor in his recommendation to do away with the military acquisition career field. This idea has been mumbled under people’s breaths for years, but this is the first time I’ve seen anyone come out and say it. Since most projects last more than three years (the average assignment for a military officer), it’s guaranteed that there will be disruption in leadership and its attendant problems. I am interested to know what will come of his remark.

I also liked the recommendation to “get rid of useless processes and procedures.” Under Lean thinking, this is referred to by its Japanese name “muda,” and it’s a wonderful idea.

### **Aristotle’s Rules ... Rule**

In the same issue, I very much enjoyed “Aristotle and the Art of Successful Presentations” by Matthew Tropiano Jr. As a frequent victim of “PowerPoint poisoning,” I found his points about Ethos, Pathos, and Logos to be right on the mark. The article should be required reading for briefers, as it would surely save a lot of wasted time at meetings.

A final aside: There’s a subtle yet valuable byproduct of reading *Defense AT&L*. Many of the authors reference good books in their articles. I have ordered and read many of these books. Always nice to get recommended reading from others in your business.

Al Kaniss

ence and respect toward elders, subordinates are reluctant to initiate activities without explicit guidance. Middle Eastern tradition also frowns upon public confrontations where one side may lose face, and so problem resolution is obscured rather than dealt with. Tribal loyalties also create parallel decision-making systems that impede formal staffing processes. Second, and more important, people are the core of an army, resulting in an entirely different experience from designing and developing a weapon system. Social and cultural traditions need to be considered in the design of the national security system in the same way that mechanical, aerodynamic, or electrical properties are considered in the design of a weapon system. Decision makers are often faced with a difficult choice: adapt the system to the ingrained culture, or try to shape and influence attitudes through training and mentoring. PMs rarely confront these considerations in a traditional acquisition environment.

### **Benefits of Embedded PMs**

Iraq and Afghanistan arguably represent the most ambitious nation-building effort since the end of World War II. Capturing and sharing the lessons and insights from the current nation-building efforts enable leaders to more effectively manage these expensive and difficult tasks. The CSTC-A experience rebuilding Afghanistan and the Afghan National Army highlights the applicability of program management techniques to large-scale security assistance programs. A detailed program baseline enabled CSTC-A to better communicate its vision and plan with external

stakeholders, and provided a common roadmap that eased internal staff transitions. Program managers brought tools that allowed CSTC-A to express and evaluate the baseline. The program schedule expressed critical subsystem interdependencies; trade-study methodologies considered the most effective use of the last dollar spent; and capability milestones enabled decision makers to make informed resource decisions and maintain synchronization between related subsystems.

To realize the benefits program management techniques bring to a security assistance organization, trained program management personnel must be fully integrated into the teams responsible for developing subsystems that comprise the national security structure. As part of the teams responsible for developing personnel, logistics, or medical subsystems, PMs serve as force multipliers, helping to capture and express the expertise that operational and technical personnel bring. Including PMs on security assistance teams and ensuring they are properly dispersed throughout the organization will pay dividends in the form of better decisions, improved accountability and communication, and earlier host-nation capability at less cost.

The authors welcome comments and questions. Contact Cooley at [william.cooley@pentagon.af.mil](mailto:william.cooley@pentagon.af.mil), Marsh at [adrian.marsh@us.army.mil](mailto:adrian.marsh@us.army.mil), and Ruhm at [brian.ruhm@hanscom.af.mil](mailto:brian.ruhm@hanscom.af.mil).

# Six Sigma for the DoD

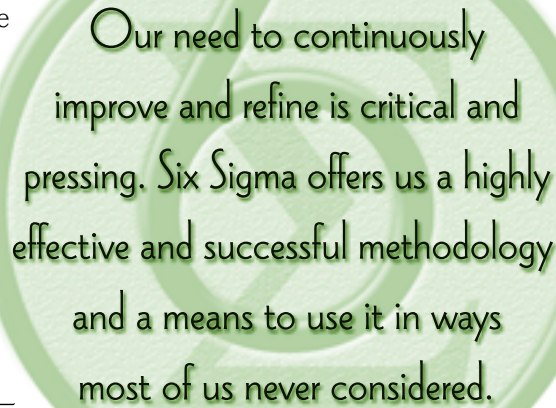
*Lt. Col. Daniel R. Matchette, USA*

**S**ix Sigma. One does not have to look very hard to find this term popping up in various Department of Defense publications and presentations. Many people are certainly asking whether it's just another quality system; a fad that passed last century; the product of a business school MBA partnered with the likes of quality assurance, lean processes, statistical process control, ISO 9000, and worst of all, total quality management. The perception is that Six Sigma is for manufacturing companies or engineering processes—yet we do not manufacture products in the DoD. The reality is that Six Sigma is about making significant business process transformations. The real questions are whether Six Sigma can be employed effectively in the DoD and for what kinds of processes.

Six Sigma has inherited stereotypes that have inhibited its use, specifically that it is a statistical process used primarily in manufacturing settings. Although Six Sigma is a logical data-driven process for improvement, the process can be used effectively in functional areas not typically considered in the DoD. For example, Six Sigma would help the DoD develop more efficient human resource functions and improve public relations, finance, budget, operations, customer service, information technology, project management, and much more. Business organizations do it all the time. If you manage a process or function, then you can profitably use Six Sigma.

At its most basic level, Six Sigma is a problem-solving technique. A commercial instructor for Six Sigma programs, SigMax Solutions, LLC <[www.sigmaxsolutions.com](http://www.sigmaxsolutions.com)>, describes Six Sigma as a philosophy, a metric, and a methodology. As a philosophy, it orients the workforce to focus on the issues that truly matter in support of the mission. As a metric, it supports objective, fact-based decision making. And as a methodology, it provides a strategy and a set of tools to help solve problems.

*Matchette is currently serving in the Secretary of Defense Corporate Fellows Program as a fellow at Symbol Technologies, Inc.*



Our need to continuously improve and refine is critical and pressing. Six Sigma offers us a highly effective and successful methodology and a means to use it in ways most of us never considered.

Motorola pioneered the Six Sigma pathway in the mid-1980s and GE popularized its use in the 1990s. The value of using Six Sigma, well-established in business, has gained some acceptance in select areas within the DoD. Yet there remain many areas within the DoD that would benefit from Six Sigma use.

## **Symbol Technologies: Six Sigma in Action**

Let us examine a recent business implementation of the process at Symbol Technologies, a New York-based manufacturer of mobile computers, wireless network infrastructure gear, advanced data capture devices, radio frequency identification (RFID) technologies, and management software. The use of Six Sigma by Symbol Technologies will highlight non-traditional business areas within the DoD where the process would be beneficial.

In February 2005, Symbol Technologies made a large commitment to ensure Six Sigma would work in their organization. By December of 2005, they had invested \$1.2 million in training and resources; trained 62 senior-level Six Sigma practitioners (“black belts”) and 37 mid-level (“green belts”); and initiated 72 projects. At the end of December 2005, the company had completed six projects and realized \$2.2 million in savings. Minus the implementation costs, \$1 million in process savings within a few months is impressive.

Why would Symbol—or any organization—undertake such an expenditure to develop a Six Sigma program and, in essence, transform to a Six Sigma culture? “Customer success, excellence, integrity, innovation, and commitment are part of the culture today at Symbol,” says Art O’Donnell, senior vice president and general manager of Symbol’s Global Services Division and chief quality officer. “We target Six Sigma performance in everything we do: cost structure, process improvement, speed and quality of execution.”

In search of long-term positive results, Symbol implemented Six Sigma to maintain their competitive advantage and market leadership in mobile computing and ad-

vanced data capture. Those who are serious about winning know that once a process is improved or a breakthrough achieved, competitors (or adversaries) will design a new process or advancement and gain the advantage. Companies continue to improve and strive to make all operations better.

### But What About DoD?

Symbol is an engineering and manufacturing company, so Six Sigma naturally makes sense in their business. Think of the countless improvements in consumer electronics and the large number of competitors that continuously release innovative products. But how would the process help a nonmanufacturing organization such as the DoD? In our line of work, think of the improvised explosive device cycle in Iraq, with its continuous loop of improvement. One side advances the effective use of explosives, how they are hidden, and how they are detonated; the other side increases its detection abilities and its protection from the devices. Military, just like businesses, must continue to refine, redesign, and improve to maintain a competitive advantage.

Let's examine nine of Symbol's 72 projects across several company divisions (shown in tabular form below) for insights to application in the military services. Clearly a few of the projects (like finance and marketing) would be considered atypical *areas* in which to use Six Sigma. Others are atypical *uses* for Six Sigma, like the product engi-

neering project whose goal is to improve the process for applying software upgrades on hardware already sold and at a customer's location. The first supply chain project is to improve the process for managing inventory, and the second is a process to decrease errors in software coding. The sales project is to design a process that will help the sales team sell more products to a specific customer type. The other areas—information technology, finance, customer service, marketing, and human resources—are functional areas that do not come to mind when we think about re-engineering error-causing, costly processes. Yet Symbol is yielding benefits in these areas.

### It's Not All About Statistics ...

One of the strengths of the Six Sigma methodology is that it requires leaders to stop and think through the problem in detail. The Six Sigma tools are very useful in defining and understanding the problem. Before applying the first statistical tool to the first piece of data, you must know what problem you are trying to solve and the benefit you expect to derive. Conducting an effective problem "define," the first step in a Six Sigma project, will probably account for 50 percent of the effort spent on the project.

Understanding the potential benefits and "critical-to-quality factors" are part of the Define phase of Six Sigma. Truly understanding the problem is difficult. In approximately one out of four cases, once you clearly understand the problem, the answer will be obvious and no additional work necessary. The Six Sigma rule is this: If the answer is obvious, then stop and implement the solution.

### But Data are Important

After the problem is defined, the Six Sigma process requires that you dig deep into data and use statistical tools to help identify and isolate root causes of the problem. Six Sigma tends to work well in commercial companies because they usually place great emphasis on measuring all aspects of the company's operations. This is especially true if they are a publicly traded company and are subject to numerous Security and Exchange Commission regulatory reporting requirements. Symbol is highly data-driven. Six Sigma practitioners at Symbol always look at numbers to measure what the business does, evaluate new sources of data, and look

Owning Organization	Project	Projected Benefit
Product Engineering	Improve hardware and software license upgrade process	\$3.8 million annual revenue cost avoidance
Supply Chain Operations	Improve forecast quality for large sales	Improved forecasts will allow shipping \$10 million in additional product quarterly
Supply Chain Operations	Improve software coding process for specified products	Cost avoidance of \$2 million in defects
Sales	Develop process to increase product sales to Original Equipment Manufacturers	Decreased time to assess sales opportunities; increased revenue from selling additional product to OEMs
Information Technology	Improve help desk customer support	Defects reduced to one-eighth of current level, decreasing costs and increasing customer satisfaction
Finance	Increase forecast accuracy for returns, credits, and debits	Increased revenue by \$15 million annually through better revenue flow and inventory management
Customer Service	Increase repair depot turnaround times	\$6.2 million in increased revenue
Central Marketing	Increase efficiency with integrated marketing activities	\$180,000 annual savings and greater speed to deliver marketing products
Human Resources	Standardize relocation and commuting process	Decreased cost for the company and greater process transparency for associates

### Symbol Six Sigma Projects, 2005



for new ways to examine existing data. Traditional Six Sigma powerhouses such as Motorola or GE are even more rich with data. The DoD, by comparison, is data-poor. There are exceptions—such as maintenance or readiness rates in tactical units, aviation maintenance rates, depot repair rates, or supply depot transactions—but the inescapable fact is that, particularly in our business processes, most of DoD, is data-poor or absent of data.

### **Why DoD Needs Six Sigma**

I recently made a trip to a Washington, D.C.-area Common Access Card (CAC) issuance facility to obtain an ID card. When I arrived at 1:00 p.m., employees were serving “customer” number 20. I pulled customer ticket number 80, and the facility was scheduled to close at 4:30 p.m. Three numbers were served in the 45 minutes I waited before deciding to leave. The waiting room overflowed while many other customers waited outside, with some sitting on the street curb. This is an example of a customer service process that the Six Sigma methodology would improve. Why were new patrons allowed to continue pulling service numbers when they could not possibly be served before closing? Why does the facility not have ample seating? Where was the customer service desk to answer questions? The CAC process itself is slow and could be improved. There are several projects here for a team of black belts. But defining the scope of the problem and variables that influence how long it takes to get an ID card would be a good start.

Using the example of the CAC, looking at the best case time required to process an ID card, provides data that can be used to figure out why “best service” didn’t happen the day I was trying to obtain my card. We can calculate how quickly customer orders are filled. The current lack of good data does not prevent us from measuring and providing baseline metrics for our processes.

Consider, as another example, the Government Accountability Office report (GAO-05-882) that cited problems with DoD’s processes for recording and reporting costs associated with the global war on terrorism. DoD misstated payroll costs by \$2.1 billion. Operational costs were overstated by \$1.8 billion, and 5 to 30 percent of costs were improperly categorized. GAO stated that the DoD cannot “reliably know how much the war is costing and details on how appropriated funds are being spent.”

For a public corporation, a \$3.9 billion misstatement of costs and significant errors with its Sarbanes-Oxley-mandated accounting system would start an SEC investigation that would probably result in the public firing of the CEO and CFO, and possibly criminal prosecution or fines against the company and its officers. But publicly traded companies are required to protect the interests of their investors. The area of cost accounting in the DoD would benefit greatly from a team of Six Sigma black belts to

analyze root causes and develop a multi-generational plan to improve accountability. Six Sigma projects do not get better than this.

As a final example, it was estimated that there are more than 5,000 business systems within the DoD. With this many systems, it is almost certain that there is much duplication of data, effort, and resources. The obvious answer, one that is recognized and being addressed, is to collapse these to the minimum required to support the DoD mission. This would be another multi-generational black belt project to redesign the business process, establish useful and timely metrics, and then begin the consolidation that must happen if we are to conserve our valuable and dwindling financial resources.

### **Leadership Buys In**

Key to Six Sigma project success and cultural transformation at Symbol is their committed leadership. From the CEO and senior vice presidents to directors and managers, it is understood that the success of the company depends on improving their performance and their products. Efforts to improve are everyone’s business and goals.

The good news is that the current DoD leadership recognizes our lack of data-driven decision making and is taking positive steps to make DoD a fact-based, objective, decision-oriented organization. Identifying fixes to hard problems, saving large dollar amounts, and improving our processes are exactly the reasons to use Six Sigma. The need for data is a process improvement. Demanding more data will result in the ability to collect and measure more data, and will engage a loop of continuous improvement.

There are numerous areas within the DoD where Six Sigma tools and techniques should be implemented. Eliminating irritating customer service processes is good business; improving our warfighting and business support processes is vital; and saving billions of dollars in excess costs is financially and ethically imperative. While it may not be possible to implement Six Sigma throughout the DoD, it should be implemented as widely as possible, and taught in detail at appropriate DoD professional development schools. (Symbol black belt trainees received 104 hours of classroom instruction and countless hours of one-on-one mentoring sessions while working real company problems.)

The bottom line is that our need to continuously improve and refine is critical and pressing. Six Sigma offers us a highly effective and successful methodology and a means to use it in ways most of us never considered.

The author welcomes comments and questions. He can be contacted at [matchette-daniel@us.army.mil](mailto:matchette-daniel@us.army.mil).



# The Five “P”s in Project Management

Wayne Turk

**H**ere is a puzzle for you. Can you find the five “P”s in Project Management?

Yes, I know that there is only one “P” in the words, but there are lots of them in the way that we define and run projects. The five that are most important (although there are others) are *Proposal*, *Planning*, *People*, *Processes*, and *Product*. They can spell success if handled correctly and disaster if used incorrectly or ignored. This is not an in-depth review, but only an introduction. It is also not a “how-to” article, though there are some helpful suggestion nuggets included.

## Proposal

If you do all of your projects in house, you can skip this section. However, in today’s environment, it is a highly unusual organization that does everything in house. There are two parts to proposals. One is requesting/evaluating them and is strictly a government responsibility, in most cases. The second is writing a responding proposal, which is a contractor job. This article will hit only the high points of both. For the requesting/evaluating tasks, there needs to be a good working relationship established with the contracting officer. We contractors are on our own for the response and proposal preparation, and this is done differently from company to company.

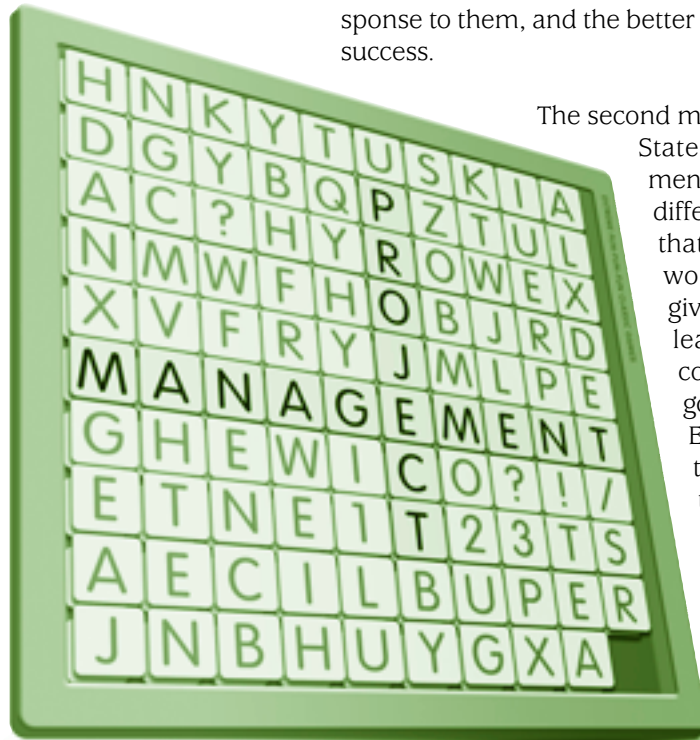
The first step is to determine the requirements. Good requirements are the basic structure of any successful project, as I’ll discuss later, in more detail. What are the requirements for the proposal? The better defined the requirements, the better the proposal you write in re-

sponse to them, and the better chance for overall project success.

The second major step is preparing the Statement of Work or Statement of Objectives. The basic difference between the two is that the SOW describes the work to be done; the SOO gives the desired outcomes, leaving the “how” to the contractor. Again, writing a good SOW or SOO is tough. Either needs enough structure and details to ensure that you get what you want, but enough flexibility to cover unexpected problems and opportunities. *Too much* structure or flexibility can lead to trouble. Usually the SOO will be the requirement that a contractor writes the proposal against, and it is issued as part of the RFP.

The third step is to determine the response time and the time needed to complete the project based on current in-house activities and available staffing. Being realistic with both timeframes is critical. Giving two weeks for contractors to respond to a complex and lengthy RFP is ridiculous. The government won’t get a good comprehensive proposal if the turnaround is too short. The contract length is also important. Is this a six-month project or should you be looking at one or two years with option years? Contractors have to decide if it is worth bidding on. Does the company have the staffing required to perform adequately?

The final step is the evaluation of proposals. This is why a good working relationship with the contracting officer is very important. He or she will determine the evalua-



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**The product is what projects are all about and why we all have jobs. ... Whatever the product, it is certainly the most important “P.”**

tion criteria with PM input. Is cost the number one consideration, or is it past performance on similar projects? There are multiple criteria, and they are usually weighted in order of importance. The actual evaluation is normally done by a group that includes subject matter experts, contracts people, and others. The exact makeup of the Source Selection Evaluation Board varies and is based on the expertise needed to make a proper evaluation. It is important that the group have the right makeup, be unbiased, and do a thorough job of evaluating against the stated criteria.

There are many other considerations that have to be a part of the process. What type of contract (performance-based time and materials, cost plus, fixed price, etc.)? Should it be under a government-wide acquisition contract (GWAC) or blanket purchase agreement (BPA)? Is it a small business set-aside? Will it be open competition (unrestricted) or from limited invited sources? Will it be multiple vendors? What are the page limitations (if any)? Will there be briefings or a question period, pre- and post-award conference, and so forth?

Contractors are responsible for providing a good, readable, and understandable proposal. It must cover what the government is looking for, sometimes requiring clarification questions, the answers to which are provided to all bidding companies. The proposal should focus on the company's or team's capability to fulfill the requirements of the SOO/SOW, as well as any innovative ideas for meeting the requirements. The past performance should provide appropriate examples. The submission is normally divided into a technical proposal and a cost proposal. It must be on time and in the appropriate format. There is more required, but you get the idea.

### **Planning**

I can't emphasize planning enough as a critical part of the project. The required planning covers a plethora of areas. Initial planning must include the budget, staffing, and schedule, not to mention all of the plans that are part of the project documentation.

Many projects are given a completion date before there is ever a project manager appointed to the task. Managers are normally forced to develop the schedule using the project completion date and working backwards to include all of the necessary actions. The schedule should be as realistic as possible. For a number of suggestions on making a realistic schedule and sticking to it, see "Quality Management ... A Primer (*Defense AT&L*, July-August 2005). Monitor the schedule and be prepared to be flexible and possibly revamp it. Chances are that you will have to at some point.

As with the schedule, the budget—at least, the initial budget—is set by someone else. It is a constraint that projects have to live with. Again, being realistic is a must: What can be done with the dollars available? Over-optimism has dented more than a few careers. Be prepared for changes because chances are better that the budget will be cut at some point than that it will be increased. Budget management takes good planning, constant monitoring, and sometimes a good dab of creativity. A little luck doesn't hurt either.

The other internally required plans are not the wasted efforts that many managers consider them: the project management plan, the quality assurance plan, the risk management plan, the test plan, and so on—seemingly *ad infinitum* (or *ad nauseum*, depending on your viewpoint). But they do more than just fill the squares—they all fulfill a worthwhile function. They help apply organization, structure, and scope to the project. They also provide the justification and basis for decisions on what will be done and how it will be done during the project's life.

### **People**

I use the term "people" rather than "personnel" for two reasons: (1) it seems friendlier and less impersonal; and (2) more important, it covers more than just those working on the project. People include the project staff, associated subject matter experts, end users, upper management, and other stakeholders. All are important to the project.

Managers need good people for projects, whether they are employees or contractors. Having good people makes achieving success much easier. PMs need to be selective; personality and attitude are sometimes more important than experience or skills. The staff must also have the right tools for the project. For most PMs, the best course of action is telling the staff the schedule and what results are needed, then getting out of their way. Many times, because of their different skill sets and experiences, the staff will have better ideas about how to meet the needs of the project than the PM. But if you're the PM, you still must monitor their work and the results on a consistent basis.

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There are a number of subject matter experts who will have to be called upon during the project. They include the technical experts, of course, but also might (and probably will) include financial, legal, contracting, logistics, and other experts who can help keep the project on track and out of trouble. A PM should never hesitate to ask for their advice and expertise, as well as have concurrence to get the right talent for the project.

End users need to be involved in the project from the beginning. They help determine the requirements and should be involved in the testing. A post-award meeting with the contractor is always recommended to ensure everyone understands the requirements, the goal, and the assumptions up front. Without end-user involvement, a project may end up with a product that is unusable, unwanted, or unneeded, and that's just wasteful spending of resources.

Without upper management support, projects don't get the things they need, like sufficient funding. Upper management are the project's champions, fighting for resources, acceptance, and support from others.

All the people mentioned are stakeholders. There are others, including those who will have to support the product, vendors, trainers, and outside agencies. The basic key to success with all of the stakeholders is good communication. Communicate up and down the chain. Let all of the outside stakeholders know what is going on. It doesn't have to be a continuous flow of communication, but the flow must be there.

### Processes

Processes are the methodologies used to produce specific interim and final results, and they can include individual roles and responsibilities, activities, techniques, procedures, deliverables, workflows, tools, and measurements and metrics. While the definition sounds complex, processes can be simple yet still set the structure, framework, and baseline for a project. They ensure that things are done the same way each time and on a set schedule. Processes make it all fit together. Knowing that things are done the same way every time gives the project staff, management, and customers confidence that nothing is missed and that the results are trustworthy, useful, and usable. Processes need to be tailorable, flexible, and continually improved to be the useful tools that they can be. It is also good to establish a process that can be used to track successes and failures, as well as provide a base for future project planning.

Processes are a good thing, but they have their bad side. Processes are built from what has happened before and not necessarily from what is happening now or what might happen in the future. There are always the unexpected and the unplanned. Innovation and original think-



## In the end, what it comes down to is learning to spell project management with five “P”s.

ing are needed during a project’s life, and over-structured processes can get in the way of that.

There can be another problem with processes: Some people and organizations get so caught up in the processes that they forget about results. Results are what project managers get paid for. Managers and others can concentrate so much on developing or following the processes that they forget the true purpose: to end up with a product or outcome. Processes are the means to an end, not the end itself.

### Product

The product is what projects are all about and why we all have jobs. If we don’t provide the right product, we have no reason to exist. Most projects result in an item of some kind, be it software, hardware, or other product for the warfighter or warfighter support. But it can also be a service, plan, recommendation, report, or some other outcome. Whatever the product, it is certainly the most important “P.”

To end up with a useful and usable product, good requirements are a must. But good requirements are only the first step. Such a simple sentence for a complex activity. It requires user input, good analyses, a touch of reality, and finally, documentation of the requirements. Writing good requirements is an art, but it can be learned (see “Mission Possible ... With Good Requirements,” *Defense AT&L*, Sep-Oct, 2005). Requirements must be identified, prioritized, and evaluated. Are they understandable, reasonable, technically feasible, doable for the dollars available, and prioritized?

Requirements change over time, whether we want them to or not. There is a danger in that; it’s called “scope creep” (the unanticipated growth of requirements). Be very careful of scope creep. It can impact the cost and schedule. Another pitfall is gold-plated requirements. Gold-plated requirements are like gold-plated bathroom fixtures: they meet the need but are much more than is really required. For example, suppose a laptop is needed for a project. Gold plating might be a ruggedized (capable of being taken into the field), top-of-the-line laptop with wireless capa-

bilities, when all that is really needed is a basic laptop that can be plugged into a network somewhere. The government is no longer looking for more bang for the buck; rather, it is looking to get the right item in the right place at the right time for the right price.

End users must be a part of the requirements process. They have the best understanding of what is really needed. It is best to get all of the players in the same room in the beginning. According to Brad Sabo, an instructor at the Air Force Institute of Technology, the Air Force has implemented the HPT (high-performance team) process to do this. Their process is an integrated product team. The team leader decides who needs to be present, who needs to be on call, and how they will proceed. The idea is to have all the right people in the room to ensure that the requirements are affordable, achievable, and testable. All requirements must be backed up by analysis. This brings together the users, acquisition community, testers, logisticians, and so on early in the process and has led to a much better set of documents. “Because of the high quality of the products that the HPTs have been turning out, we have been able to expedite the coordination and staffing process,” says Sabo.

Another critical part of product (and process, for that matter) is testing. Adequate and timely testing with good test plans makes for good products and prevents major problems in the field. Projects can’t scrimp on the testing. It will come back to haunt them. There should be multiple levels of testing, one of which is user testing (this applies especially to software). If at all possible, independent testers should be included. Timeliness is important, too.

The final major point is deployment of the product. What is the best way to get the product to the user in the most timely manner? Some products just go in the inventory, while others must be distributed to the end users in some way. A deployment plan is necessary and useful for most projects.

So it’s important to be aware of the importance of **Proposal**, **Planning**, **People**, **Processes**, and **Product** in the world of project management. If project managers are not paying attention to these five, they can be headed down the road to failure. And if that is the case and they realize it, wholesale changes all at once may not be the right answer. It’s like the advice on how to eat an elephant—one bite at a time. Make a change or set of changes, wait for the results, and then make the next change(s); and document, document, document! But in the end, what it comes down to is learning to spell project management with five “P”s.

The author welcomes comments and questions and can be contacted at [rwturk@aol.com](mailto:rwturk@aol.com).



# Leading Teams

## Ten Top Tips

Nicola A. Nelson

**M**ost of us reading this magazine have probably been members or leaders of a technical or programmatic review team. These teams have names like “red team,” “independent review team,” “tiger team,” or “assessment team”; and they are made up of a group of professional people chosen for their specific skill in reviewing or assessing a program, process, or function and reporting out their findings. As a team member, you may have found yourself thinking that the team could have been more effective if the leader had, perhaps, carried out his or her duties differently. If you were the leader, possibly you weren’t sure how to proceed at certain times or when issues arose.

This article provides—not necessarily in chronological order—the Top Ten actions that a good team leader should take to make his or her team more efficient and productive.

### 1. Write a Charter

Defining your team’s charter is perhaps the most important action you can take to ensure success and customer satisfaction. The customer may ask you to put together a team to “see what’s wrong with the program,” or “figure out why the software doesn’t work.” (Note that “customer,” as used here, simply means the person or people asking for the assistance of the proposed team.) Sit with your customer to understand why he, she, or they think a team is needed and what they expect the team will produce. It is then up to you to write a simple charter defining precisely what you think the team will and will not do. If possible, use the customer’s words for the first draft. Keep the charter short enough that

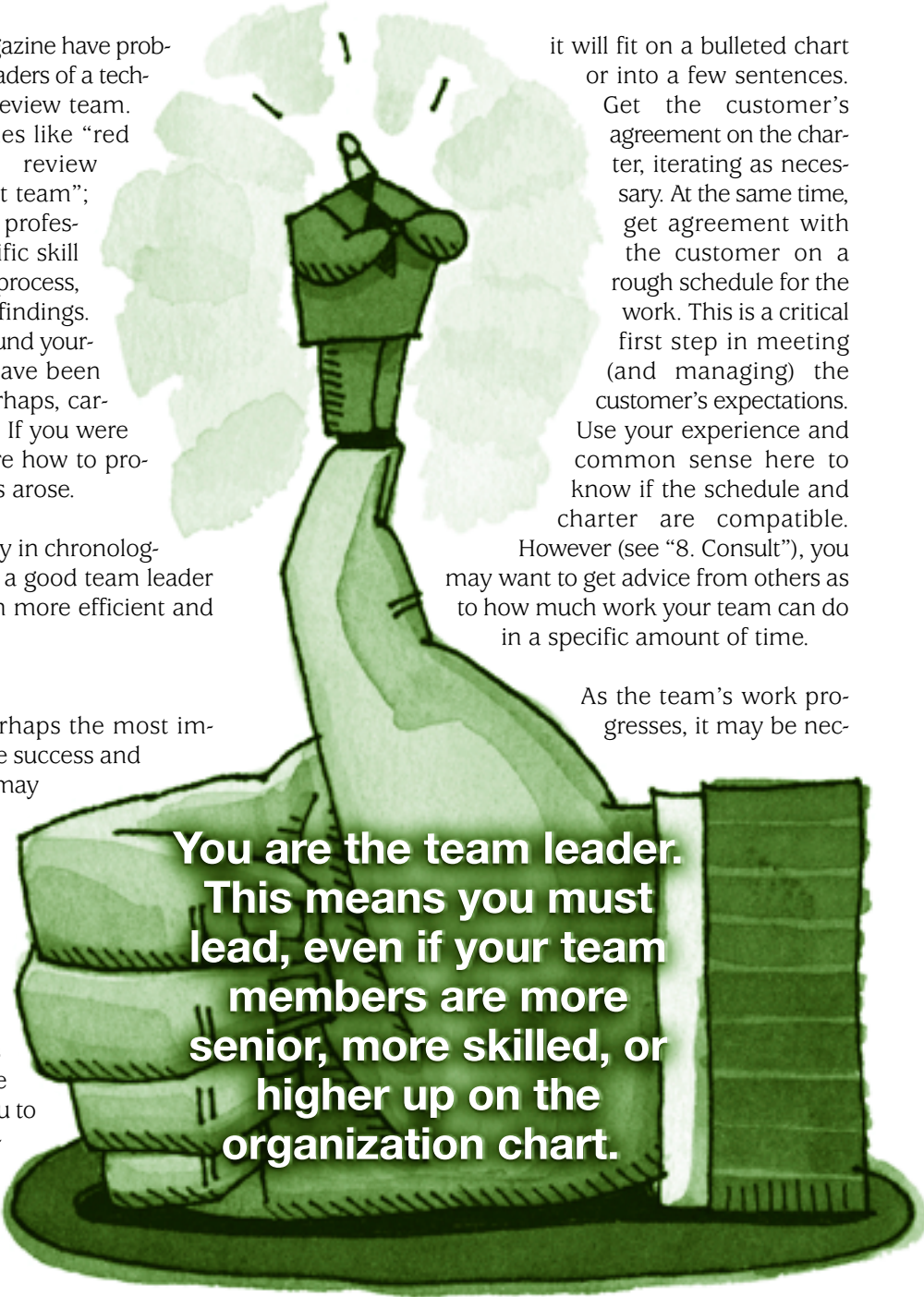
it will fit on a bulleted chart or into a few sentences.

Get the customer’s agreement on the charter, iterating as necessary. At the same time, get agreement with the customer on a rough schedule for the work. This is a critical first step in meeting (and managing) the customer’s expectations.

Use your experience and common sense here to know if the schedule and charter are compatible.

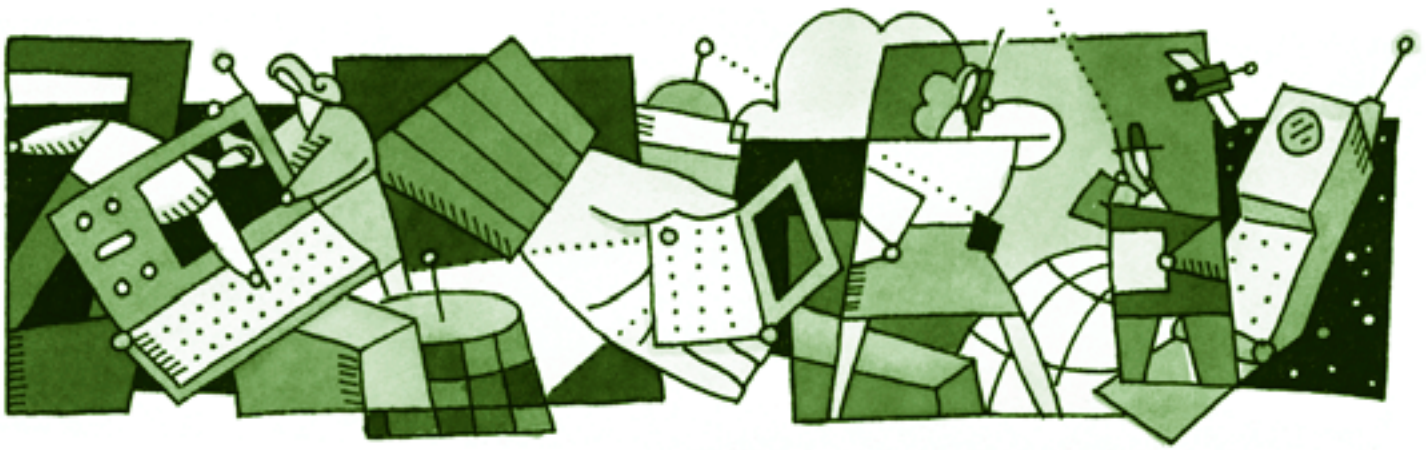
However (see “8. Consult”), you may want to get advice from others as to how much work your team can do in a specific amount of time.

As the team’s work progresses, it may be nec-



**You are the team leader.  
This means you must  
lead, even if your team  
members are more  
senior, more skilled, or  
higher up on the  
organization chart.**

*Nelson has worked at The Aerospace Corporation since 1973. She holds electrical engineering degrees and has participated in and led numerous review teams for national security space programs.*



## **Communicating constantly may be the most important of all the leader's activities.**

essary to rescope and recharter. If this happens, make sure the reasons are documented clearly and the customer is in agreement with the new charter. Always begin each briefing or report with the team charter so that the audience knows what the team was expected to do.

### **2. Choose Your Team**

In many cases, you as the leader are expected to put together a team. Before picking up the phone, make sure you understand the resources you have. Are the members paid for by the customer asking for the team, or are they supposed to charge their own organizations for their time? Will the customer pull strings to get the people you need, or are you left on your own to convince them to assist you? In any case, always ask for the absolute best people you can think of, with the skills you need. Good people are always busy people; however, they can often choose the work they want to do, so it never hurts to ask. Along with the charter, you should have a draft plan and schedule to discuss with them and an idea of the minimum commitment needed to perform effectively on the team. For example, you might ask for one day a week for two months plus one out-of-town trip in the middle of the third month. Make sure you look the prospective member in the eye when he or she promises to commit that amount of time. It is a good idea to send a follow-up e-mail or memo to document your conversation and the commitment—and copy your management, the team member's management, and possibly even the customer.

You may be given a ready-made team. If so, get to know each member individually by scheduling a one-on-one conversation. Try to obtain up-to-date résumés to understand members' professional backgrounds. Solicit their assistance in making the team successful, even if they are unwilling participants, and assure them you will be an efficient leader so as to make the best use of their time. Again, explain the necessary time commitment, and document it as described above.

### **3. Assume Leadership**

No matter if the team is one you've chosen or not, you are the team leader. This means you must lead, even if your team members are more senior, more skilled, or higher up on the organization chart. Teams cannot be led by committees. Kick off your team with an interactive meeting in which you set the tone—making sure that no one dominates (including you) and that everyone participates. Depending on your resources and the nature of the team, it may be advantageous to use a skilled facilitator for this first meeting. Make sure you adhere to good meeting practices: have an agenda, take minutes, note action items and those responsible for them, and so on. As the leader, you must be merciless about members' meeting their commitments (such as attending meetings, reading documents, preparing reports, etc.). If issues do occur, discuss the difficulty in private with the member, with the member's supervisor, or even with the customer. Remove members from the team if they repeatedly fail to meet commitments. It is not fair to participating members to make them carry an unproductive coworker.

### **4. Plan**

A good team leader is always planning and replanning. Begin by deciding on your final product. Is it a report, a briefing, a spreadsheet? Bullet charts with appended notes are easily produced and more easily absorbed by busy customers than a long report. It can be very helpful to draft a final outbrief on the first day of the team's work, possibly even at the kickoff meeting if the schedule is short. This immediately sets the tone of what the team must produce and what is outside the scope of the team's work. It also provides for work assignments for each team member and reinforces the need to produce a tangible product.

As the leader, you must understand and track your budget, including travel. If it is not sufficient to meet the charter, you must rescope or find more money as soon as possible. Be sure, from the outset, that all team members





## You're the Judge

*In this column, we feature cases that center on an ethical dilemma and invite you to be the judge. Some of the cases involve agencies outside DoD, but the issues they present are equally applicable to the defense acquisition community.*

Joe G. is an acquisition official working in DoD. He and his neighbor Jim M. are good friends and have been golfing buddies for 20-plus years, playing on an almost weekly basis. Jim M. retired from the military about eight years ago and now works for a defense contractor. Joe and Jim both hold senior positions in their respective organizations. As has been the custom since they first started golfing, they end each round of golf on the 19th hole, where they alternate buying each other drinks and appetizers.

For the last couple of years, Jim's boss, Bill B., has joined Joe and Jim about four times a year. Bill is not much of a golfer and always makes amends for his poor game by picking up the entire tab at the 19th hole. The amount depends on the course where they are playing, but it generally runs about \$15. However, on one outing, Bill got a hole in one, and his wild celebration that day ran over \$40.

### **You're the judge:**

*In accepting hospitality from Jim and Bill, does Joe have a Standards of Conduct problem?*

*The verdict is on page 36.*

understand the entire budget and their allotted portion (see "5. Communicate").

Of course, you must also plan—and possibly replan—your schedule. Make a determined effort to stick to the original schedule (remember, be merciless about commitment). No one—not the customer, not the team members, not you—will be happy about a schedule that keeps slipping. If a schedule slip seems imminent, consider de-scoping or deferring the additional work to a new team or to a subsequent review. For example, if a technical review begins finding cost irregularities, stick to the technical review and set up a separate cost review team or postpone the cost review until after the technical review is complete. Any out-of-scope effort your team thinks is needed should be recommended in the outbrief. Work with the team and the customer to determine if partial

results delivered on time are better than a more complete product delivered too late to have an impact.

## **5. Communicate**

Communicating constantly may be the most important of all the leader's activities. Make sure each team member has access to every shred of information you create or receive. No team member should be able to say, "But you never told me ... ." Set up lists for voicemail, e-mail, and documents. Use delivery confirmation to ensure the e-mails arrived at their destination. Encourage members to copy their inputs to the entire team, and if they don't, *you* immediately forward them to each member. Have short but frequent status meetings with the team and with the customer. Invite the entire team to the team meetings, and be honest about current and potential difficulties. Ask the members their opinions, and consider what they say carefully, taking into account their different communication styles. Develop an ingrained habit of asking yourself, "Have I let everyone know what happened today?"

## **6. Lead**

Okay, you're the leader—now lead. This is harder than it sounds, and there are many articles and books that discuss leadership. Don't be intimidated by team members more senior or more skilled than you or by insistent or aggressive members. A very important part of leadership is to work hard. Set an example of the dedication and high quality products you expect from the team. Figure out a vision and methodology, discuss it with each member individually, then help the team modify it as needed. A leader must make decisions. If you are communicating regularly with the team, they will understand why you made a decision even though they may not agree with it. Make sure you take charge of meetings and that everyone's voice is heard.

The customer will expect you, as the leader, to consult regularly one-on-one with him or her. Do be sure to pass along the insights you acquire from this meeting to the rest of the team. Trust your judgment, experience, and common sense. Keep moving forward. Mistakes are inevitable, but a good team will overcome them.

## **7. Delegate**

Delegating increases your productivity and leverages your resources. Don't do the work of the team members. They are responsible for meeting their commitments, and if you are doing your job of planning, leading, and communicating, they will do theirs. However, *do* do sanity checks. Make sure interim products are of the expected quality and are delivered on time. Ask the specialists questions to make sure they did their homework. If they are convinced their investigation or analysis is correct, accept their inputs even if you disagree with them (but see the "feel right" warning under "8. Consult"). On a team

of professionals, peer pressure will almost always ensure accurate results from an individual. If a member really doesn't perform, you may need to rescope or even replace him/her, always in coordination with the customer. Try to complete the team's remaining tasks on schedule, even if subsequent work is needed to fill in what the non-performing member didn't complete.

## 8. Consult

Discuss your plans and progress with your customer, your boss, your coworkers, and with others who have led teams. If your team encounters a difficulty, look for advice and possible solutions. You will get better advice if you communicate the difficulty precisely. Search for recent activities or studies that can be useful to your team. Don't reinvent the wheel. Listen carefully to all inputs, but don't feel obligated to implement any suggestions that don't feel right to you. Trust your instincts. Do be cautious about discussing preliminary results outside the team. It may be very difficult to communicate the final results if the earlier ones are found to be incorrect.

## 9. Work

Good leaders must work hard. Do whatever it takes. Read documents. Type. Go pick up carryout lunches. Sometimes you have to make the coffee before you can make an impact. Set the example of hard work for the team and you will be gratified at the results.

If at all possible, "blitz" the task. This means dedicating the team to the task for a specific length of time. A small investigation team can get an amazing amount of work accomplished in a week, especially if they draft the outbrief on Monday morning and schedule the outbrief presentation for Friday afternoon. And don't visit or check with their offices during the time the team is working.

Stick to your scheduled status meetings. Even on longer-duration teams, keep working on the outbrief. This will

immediately tell you where your results are incomplete or where rescoping is needed.

## 10. Give Credit

All of us have had experiences where our hard work was not acknowledged or someone else got credit for it. Make sure your team

members don't have that experience. Always remind the customer and all audiences who the team members are, verbally and in all written products. Say "we" and "our team." Team members who feel ownership will also feel responsibility, and everyone benefits. Say "thank you" a million times. Saying thank you for a small effort helps to guarantee that your request for a larger effort will be successful. At the end of the team's task, write formal, individual thank-you letters—not e-mails—with copies to appropriate higher-ups in the individual's management chain. Even if you felt the member could have done a better job, say thank you for what was done well. Negative feedback should be given verbally in almost all instances, unless it is a repeated offense.

## ... And Everybody Wins

Leading a team is a professional opportunity to learn, contribute, and advance your career. It expands your professional network and enhances your knowledge and experience base. If you carry out your leadership duties well, the team members will also experience some of these benefits and will have spent their time productively. You've helped to ensure that the team's results are on time and of high quality. Best of all, you'll have a delighted customer who is very satisfied with the team's work.

The author welcomes comments and questions. Contact her at [nicola.a.nelson@aero.org](mailto:nicola.a.nelson@aero.org).



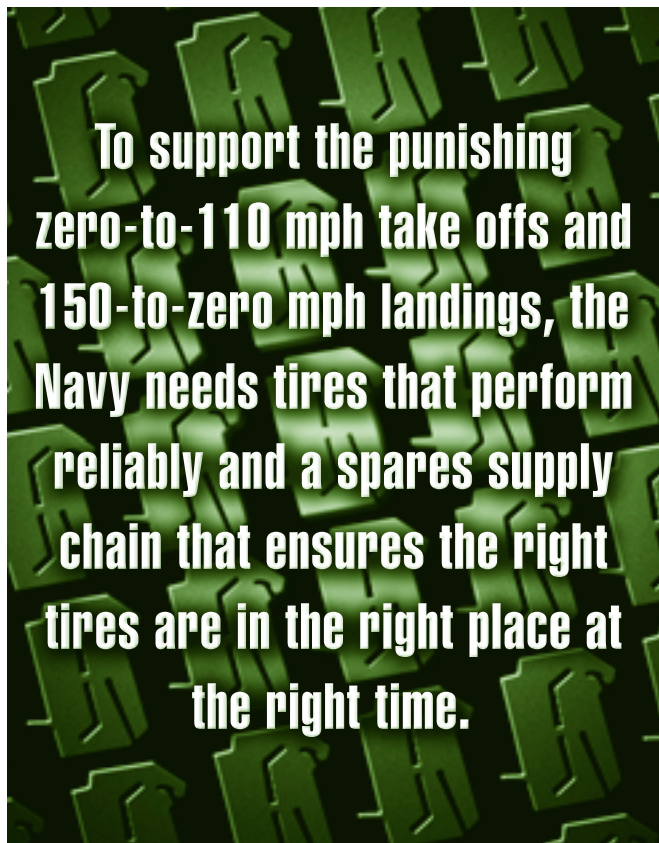
# Performance-based Logistics

## Putting Rubber on the Ramp

*Devi Mahadevia ■ Robert J. Engel ■ Randy Fowler*

**A** launch every 30 seconds, a trap every 60 seconds—that describes a typical cycle time for U.S. Navy and U.S. Marine Corps carrier-based aircraft. To support the punishing zero-to-110 mph take offs and 150-to-zero mph landings, the Navy needs tires that perform reliably and a spares supply chain that ensures the right tires are in the right place at the right time.

Until 2001, that supply chain included a huge in-stock inventory at Navy and Marine Corps air bases—but that inventory often didn't have the right mix of tires. In short, the Navy was maintaining burdensome overhead costs for shipping and storage but didn't have the metrics or processes in place to guarantee that the right tires were in the right place at the right time.



### Cooperative Performance-based Logistics Program

In 2001, the Navy Inventory Control Point (NAVICP) reinvented the Navy tires supply chain through a performance-based logistics (PBL) effort with Michelin Aircraft Tire Company, LLC, and Lockheed Martin. NAVICP—which, as the Navy's agency to procure, manage, and supply spare parts for naval aircraft, submarines, and ships worldwide, is responsible for more than 400,000 items of supply, \$27 billion of inventory, and \$4.2 billion in annual sales—drove down costs and improved service with PBL efforts in several other supply chains it oversees.

PBL is consistent with the increasing focus of the U.S. Department of Defense on managing performance in terms of readiness and cost to meet warfighter requirements. PBL encompasses all activities related to delivering spare and repair parts. It includes manufacturing, repair, warehousing, inventory management, transportation, and related functions. To date, performance-based logistics strategies are used in 80 major DoD systems.

The use of PBL shifts the responsibility for demand forecasting and inventory management to industry, allowing DoD organizations such as NAVICP to concentrate on customer service to the fleet and field, and on appropriate contractor performance oversight. As part of a PBL program, there are incentives to industry to reduce demand for these parts through reliability growth and obsolescence management by using multi-year, fixed-price contracts that include specific material availability and delivery performance requirements. The Navy Aviation Tires PBL program is a prime example of those benefits.

Michelin and Lockheed Martin combined forces in 2001 to manufacture and deliver naval aircraft tires to all U.S. Navy, U.S. Marine Corps, and foreign military sales customers. The contract set a precedent, as it was the first time the DoD turned to PBL support for new and repairable tires. Michelin is the prime contractor for the program and manufactures and supplies the tires. Lockheed Martin is a subcontractor to Michelin and provides the supply chain services, such as demand forecasting, order

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fulfillment, and inventory management. Eagle Global Logistics (EGL) provides warehousing and reverse-logistics services. This supply chain solution combines expertise in software, hardware, technology, and PBL-related experience with the unique demands of the military. However, its goal remains the same—the right tires at the right place at the right time.

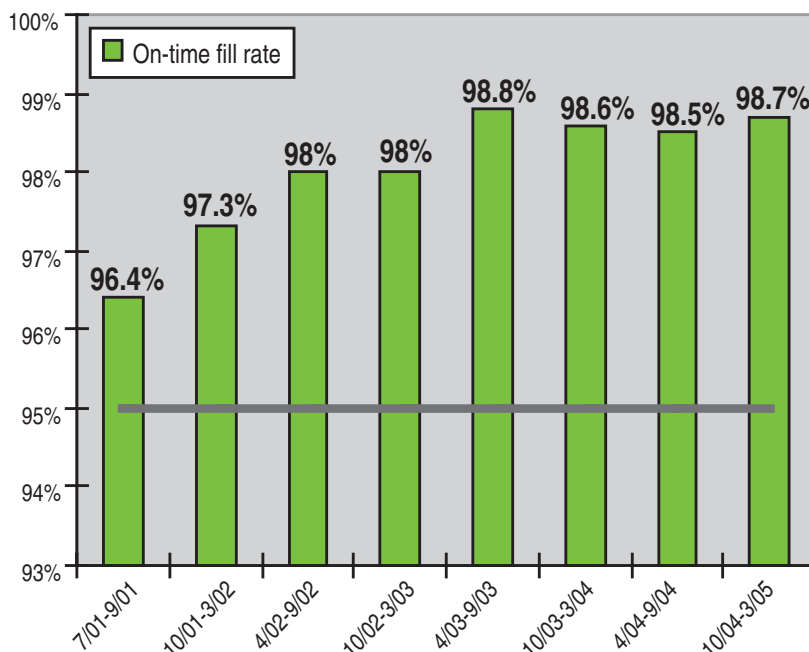
To meet that goal, Michelin and Lockheed Martin designed, implemented, and now operate a supply chain within the contractual goal of a 95 percent on-time delivery schedule (two days in the continental United States and four days outside the continental United States) to all U.S. Navy locations. An additional goal was to reduce retail inventory levels by demonstrating the reliability of the supply chain through improved, timely deliveries.

The first tire shipment took place on July 9, 2001, and the program now supports 16 different types of military aircraft using 23 tire sizes. In the first quarter of operation, the Navy Aviation Tires PBL program improved on-time tire delivery from 86 percent to 96.4 percent, and sustained performance remains in the high 90s, as shown in Figure 1.

Since the first delivery, the team has attained a 100 percent fill rate; delivered over 165,000 tires world-wide; handled overall surge requirements of 34 percent in one month, with a 236 percent surge for one particular part number over normal monthly demand; reduced on-hand inventory from a year-and-a-half supply to 90 days; and caused a 75 percent reduction in retail-level inventories

at continental United States air stations (Figure 2). The joint team manages about 1,200 requisitions and delivers over 3,000 tires per month.

The Navy Aviation Tires PBL program also includes full support to U.S. Navy aircraft during operations Enduring Freedom and Iraqi Freedom, with as many as six aircraft carriers deployed at one time. Based on their own calculations, the Navy projects significant cost savings totaling more than \$46 million over 15 years as a result of these accomplishments. The overall reduction in the Navy infrastructure and capital investment has provided an integrated product-life-cycle approach to lowering the cost of ownership over time, while providing responsive, timely, and affordable support to the fleet.



**FIGURE 1. Ninety-five Percent On-time Fill Rate Exceeds Navy's Contractual Goal**



### How the PBL Program Works

Michelin, Lockheed Martin, and EGL are integrated through a Lifetime Support Command Center (LSCC) that controls all requisitions from the fleet and provides warehouse management, inventory control, and data to Michelin to maintain their internal systems with program data.

To ensure that the whole team's performance is tied together, the performance measurement for each subcontract is tied to the requirements in the prime contract. This ensures that the requirements of the

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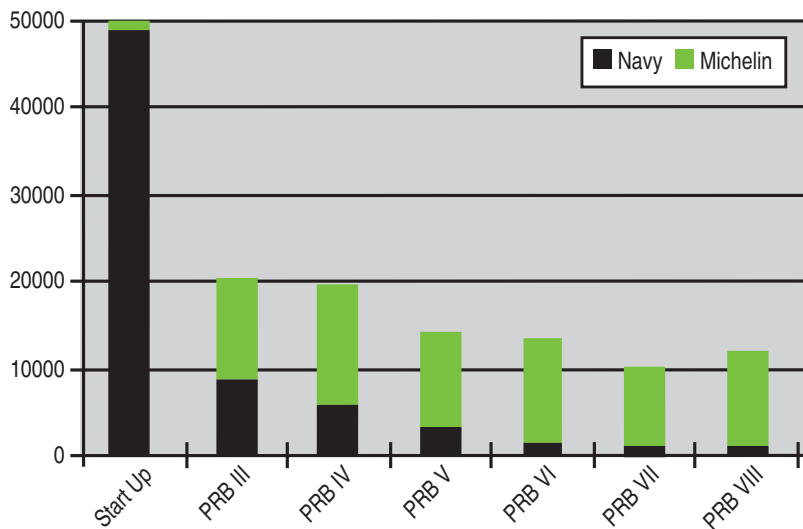
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**FIGURE 2. Seventy-five Percent Reduction in Naval Air Station Retail Levels**

prime contract are met, and each member of the team is successfully fulfilling its role.

All participants along the supply chain—from command center analysts, to warehouse operators, to transportation providers, to the customer—fully understand the goals of the program and actively monitor the performance measurements. For example, with the LSCC operated by Lockheed Martin serving as the hub, projected needs and orders are shared with Michelin's manufacturing plant and EGL. Michelin will ensure the tires projected and ordered are ready for pick up, and EGL will ensure the tires are propositioned for on-time delivery.

In addition to providing complete order fulfillment, inventory control, warehouse management, and visibility, the LSCC also provides the program manager with the data and tools necessary to achieve the required level of on-time delivery performance. Using electronic data interchange and Web-based technology to transmit requisitions, provide real-time shipping status, and provide product support information, the Michelin-Lockheed Martin team can identify customer needs immediately—and react fast.

The LSCC also uses SCM +™, a software solution specifically designed for PBL processes that combines commercial off-the-shelf software and in-house-developed software. This solution was developed to ensure the industry team involvement was transparent to the fleet customer. During implementation of SCM + and wherever possible, the majority of the legacy processes and procedures remain in place. As a result, the same ordering mechanism that had been in place continues to be used today, so as far as the ordering activity is concerned, industry involvement is transparent, and the activity continues ordering tires from NAVICP. Additionally, SCM +

integrates requirements forecasting, inventory planning, resource constraint planning, purchasing, optimization, and transportation planning and execution. With this solution, product can be delivered anywhere in the world, on time, with performance measured in hours, not days.

### Commercial Success on the Front Lines

The commercial world has developed supply chain and logistics processes to meet the rapid changes in consumer tastes and in technology, and to be able to compete in the current and future global marketplace. The Navy Aviation Tires PBL program has demonstrated that these techniques can be applied to traditional military products and that real value can be achieved when there is good communications and coordination

among the vendor(s), the customer, and the ultimate end-user. In addition, this approach can be applied to any type of product, from basic commodities through complex electronic equipment.

The DoD continues to move forward with similar PBL implementation concurrent with other logistics transformational approaches, such as Lean Six Sigma, BRAC (Base Realignment and Closure), and reliability improvements. Industry, as a DoD partner, has proved its capability on many occasions and can aid in providing deployed warfighters with reliable systems and timely delivery of parts.

Our nation's warfighters must have the supplies and equipment at the exact moment they need them. Warfighters are focused on outcomes, on accomplishing their missions. They want to have full confidence that they will have the equipment they need where they need it, when they need it, and that it will perform the way it's designed to perform when they use it. With the aggressive implementation of PBL in future programs, the Department of Defense should consider the proven value of industry-partnership PBL efforts, such as the U.S. Navy Aviation Tires PBL program, and convert existing corporate contracts to performance-based contracts. This will drive industry to higher levels of value-added services by moving to system- and system-of-systems-level PBL efforts for new platforms in the future.

The authors welcome comments and questions. Contact Mahadevia at [devi.mahadevia@lmco.com](mailto:devi.mahadevia@lmco.com) and Engel at [robert.j.engel@lmco.com](mailto:robert.j.engel@lmco.com).



# Project Blue Lynx

## An Innovative Approach to Mentoring and Networking

*Maj. Dan Ward, USAF*


**I**n February 2005, shortly after pinning on Major, I began conducting a somewhat low-profile experiment called Project Blue Lynx (PBL). The name is a play on words that refers to the "blue links" in a Web document. The objective was to foster the development of a networked cadre of innovative thought leaders. In this article, I'm throwing back the curtain and presenting the PBL methodology and some of the initial results in the hopes that others around the DoD may launch similar efforts.

### An Aptitude for Attitude

The first step was to recruit the PBL members, so I spent several months getting to know the company-grade officers in my part of the Air Force Research Lab. I wasn't looking for aptitude in the traditional sense; everyone around here is tremendously smart, so intelligence is not exactly a useful discriminator. Rather, I was seeking a particular attitude. To be specific, I was looking for something that was equal parts optimism, adventure-seeking, dissatisfaction with the status quo, and open mindedness. I was more interested in personal chemistry than professional credentials, and in the end I selected eight people: four lieutenants and four captains.

It wasn't easy to pick them—or rather, it wasn't easy to *not* pick some others. I would have liked to bring 20 people on board and could easily have built a team twice that size. However, keeping the team small, at least initially, was an important part of the atmosphere I wanted to establish.

I approached each candidate in person, quietly explaining the invitation to join a very small, more-than-slightly-subversive group. We were going to look for ways to do



Attitude matters as much as (if not more than) aptitude. And yet we spend most of our time developing aptitude. It's time to develop attitude.

things better. We were going to question hidden institutional assumptions, and we were going to challenge the status quo. We were going to explore some unusual, potentially revolutionary ideas. In short, we were going to try to change the world for the better. Everyone said yes.

### "There Will Be Homework ..."

Our hallway discussions were followed by a detailed e-mail that explained the group's operating principles (shown in the sidebar on the next page) and gave them their first assignment. "There will be homework," my note said, assigning Robert Coram's book *Boyd* and Col. James Burton's *The Pentagon Wars* as required reading. Readers who are familiar with those two books will begin to get a sense of PBL's flavor. I also provided a PDF document by Tom Peters, a few links to some online documents, and a list of eight other recommended books for their consideration. The list of recommended reading has grown wildly since that time.

The point was to expose the group to a wide range of perspectives and experiences and help lower their associa-

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tive barriers as a means of stimulating innovative thought. The reading list includes a cyberpunk novel (*Snowcrash* by Neal Stephenson); a business biography from a former cartoonist at Hallmark Cards (*Orbiting The Giant Hairball* by Gordon MacKenzie); and an assortment of books about the information revolution with varying degrees of obscurity (*The Hacker Ethic* by Pekka Himanen, *The Unfinished Revolution* by Michael Dertouzos, and *Just For Fun*, by Linus Torvalds.)

In keeping with the informal nature of PBL, there was no due date for everyone to finish reading the two required books, much less the ever-growing list of recommended books. There was simply an expectation that everyone would read as many of them as possible, as soon as possible ... and almost without exception, they did. In fact, one enterprising member contacted the lab's technical library and arranged for the purchase of several copies of *Boyd* and *The Pentagon Wars*. I can assure you that every single copy the library purchased has been read at least once, and probably many times.

### Technology, Networking, and Guerilla Marketing

PBL meetings are held at irregular intervals, usually every six to eight weeks. They last approximately 90 minutes, and are very informal. Discussion topics range from Col. John Boyd's life and work to Brazilian business leader Ricardo Semler's management principles. We examined the Simplicity Cycle long before it appeared in the the November-December 2005 issue of *Defense AT&L*—and in fact, that article contained a few ideas suggested by the group.

Over the past year, we have together wrestled with the Air Force Research Lab's approaches to technology transition, played with Web-based social networking tools, debated ways to effect culture change, and launched a guerilla marketing blitz for an in-house wiki project that we wanted to help support, even though technically none of us was actually working on that particular project. It's been a lot of fun, and we've all learned quite a bit. [A wiki is an online resource that allows users to add and edit content collectively. The word derives from Hawaiian wiki wiki meaning "quick."]

### Operation Verse

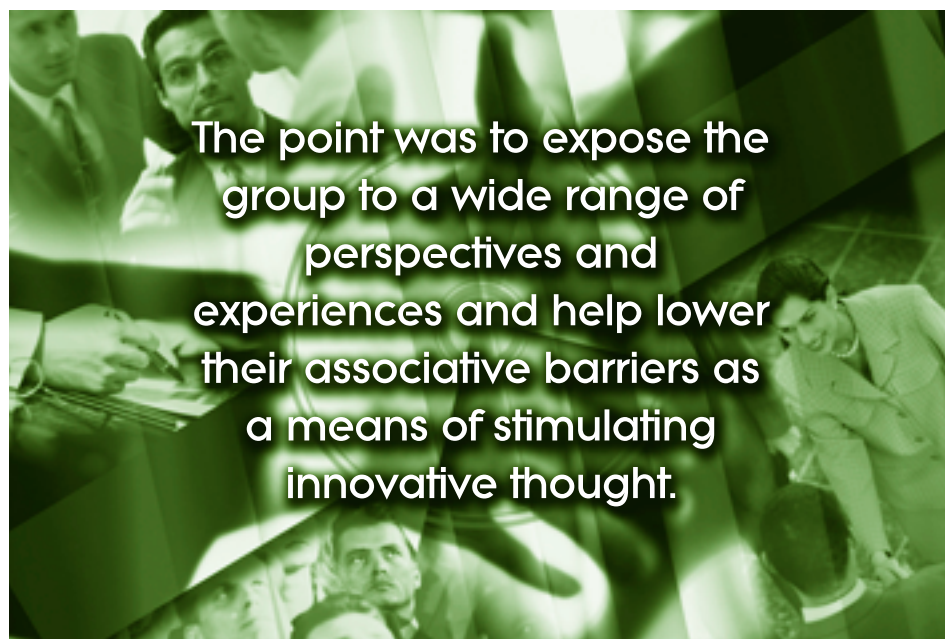
As one example of an unusual PBL activity, I once launched a surprise exercise code-named Operation Verse. When no one

## PBL Principles

- Honesty, integrity, etc., are key—ALWAYS.
- Everyone prepares. Everyone participates. Everyone contributes. Everyone reads.
- It can be done better. Acquisition and tech development can and should be faster, cheaper, simpler, easier, better.
- There will be lots of surprises. The key phrase is "unpredictable but not unreliable." Good things will come of this. I just don't necessarily know what those things will be.
- This is the Fellowship of the Frustrated. If you're perfectly content with the way things are, you may not want to stick around. If you don't think this is worthwhile, you're free to go at any time.
- Attitude matters as much as (if not more than) aptitude. And yet we spend most of our time developing aptitude. It's time to develop attitude.
- Please, please, please disagree with me—vigorously—whenever you think I'm full of crap, heading off course, or otherwise wrong. Be prepared to defend your position, of course ...
- Focus on results, not process. Keyword is "focus."

was looking, I delivered unmarked manila envelopes to the PBL members' offices. The assignment contained within was straightforward: Write a poem.

The instructions explained that the poem could be on any topic, in any genre, and of any length. Sonnets and haiku were on par with doggerel and limericks. "It doesn't have to be good," I explained. "It just has to be honest." Further, there was no requirement to actually show the poem to anyone. All I asked for was an e-mail that said, "I did



## *You're the Judge: The Verdict* (from page 28)

**What the law says:** 5 C.F.R. §§ 2635.201-205 states that executive branch employees generally may not accept gifts that are given because of their official positions or that come from "prohibited sources." Prohibited sources include persons (or an organization made up of such persons) who are seeking official action by, are doing business or seeking to do business with, or are regulated by the employee's agency; or have interests that may be substantially affected by performance or nonperformance of the employee's official duties.

Jim M., because of his position with a defense contractor, is a prohibited source. Joe G. vaguely remembers there are a number of exceptions to this general rule involving gifts, the first of which states that a gift valued at \$20 or less, provided that the total value of gifts from the same source is not more than \$50 in a calendar year, is an allowed exception.

Although the cost of each individual round at the 19th hole may not exceed \$20, the total well exceeds \$50 over the course of the year, so it appears that Joe G. may have improperly accepted gifts from Jim M.

**Joe and Jim:** Fortunately, when Joe belatedly raises this issue with his Standards of Conduct counsel, he finds out that his conduct with Jim falls under another exception. Counsel advises him that a gift motivated solely by a family relationship or personal friendship is also an exception. Since Joe and Jim have a long-standing relationship that started well before Jim's entry into industry, there is a solid basis for this exception. Although no requirement exists to do so, Joe asks for and receives from Jim a signed letter stating that he, Jim, personally pays for all golfing expenses and doesn't submit them for reimbursement as business expenses.

**Joe and Bill:** The situation with Joe and Bill is a problem. There is no long-standing relationship, and their infrequent contact may suggest that the outings are more than social gatherings. Although the individual amounts involved are relatively small, the total exceeds the limits permitted by this exception. Joe needs to refrain from accepting Bill's hospitality by paying for his portion of the 19th hole bill—the entire portion, not just the amount that exceeds the \$20 per outing or the \$50 aggregate per year.

This fictitious account shows how easy it is to unknowingly violate the Standards of Conduct. It is incumbent upon all of us to know the rules and apply them to our particular situations. We suggest that you review the rules annually—or more frequently, depending on the situation—aggressively examining your relationships to verify that you're not unwittingly breaking the rules.

it." I was quite pleased when several people boldly decided to share their poems with the whole group.

My objective was to go beyond the science and engineering of their daily work and get them to use a different part of their minds. I wanted to help bust them out of their comfort zones. I somewhat obliquely explained that this exercise "has something to do with imagination, innovation, experimentation, and courage." The willingness of several members to take the plunge so publicly is a testimony to their aptitude for attitude.

### **SAWABI Redux**

Naturally, some things didn't go entirely according to plan, no matter how flexible and fluid that plan has been. We tried to write a "Transition Manifesto" that would both highlight the challenges of transitioning technology from the lab to the warfighter and offer solutions ... but we didn't get very far, for a variety of reasons. Maybe we will pick that up again sometime, and maybe we won't.

Our attempt to experiment with a Web-based social networking tool successfully revealed that the tool we selected wasn't very good. There are a handful of other little projects we toyed with and then discarded, and while that may be frustrating or seem wasteful to some, it is actually a healthy part of life in a laboratory. Longtime readers of this journal may recall the SAWABI (Start Again With A Better Idea) concept I introduced in the July-August 2004 issue of this magazine. PBL truly put SAWABI into action.

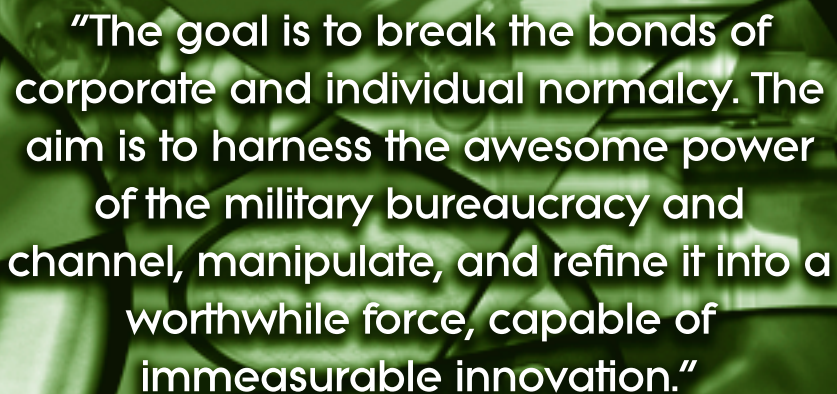
We were not aiming to be predictable or to do things that we knew would succeed. We were experimenting and trying to stimulate thought. The ability to cut our losses and move on was built in to the PBL framework of expectations from the start. Within this framework, finishing a particular project was not nearly as important as starting. Ultimately, PBL's success is defined by how much we learned and our ability to apply those lessons to the group's overall mission: build a networked cadre of innovative thought leaders.

### **Phase 2 Begins**

After 12 months, it was time to shake things up a little. We're about to lose one of the original members because of a permanent change of station, and a few others are getting short on time. So we recently expanded the group's membership, including some junior civilians and a handful of new lieutenants. As before, we were seeking attitude, not aptitude. As before, the list of people we would like to invite was much longer than the list of people we actually did invite.

This new phase will undoubtedly be different from the first. We have a track record now. We have tried some things, made some discoveries, and built some relation-





**"The goal is to break the bonds of corporate and individual normalcy. The aim is to harness the awesome power of the military bureaucracy and channel, manipulate, and refine it into a worthwhile force, capable of immeasurable innovation."**

**Capt. Mounce, USAF**

down. Each team member helps all the others, to include bottom-up mentoring. It offers an opportunity to influence the minds of all participants, hopefully for the better."

**Lt. Barsch:** "I particularly enjoy the brainstorming sessions, which encourage out-of-the-box thinking and lively debate. Contrary to common stereotypes about military leadership, I believe it the solemn duty of every officer to take time to think outside the box, to seek out the next innovative approach that will keep us not just steps, but miles, ahead of the enemy. PBL is a forum for such debate."

ships. We are quite comfortable, which is almost reason enough to introduce some fresh blood and new perspectives.

The objective in this new phase is the same as before: foster the development of a networked cadre of innovative thought leaders. We are simply trying to do more of it, perhaps in a slightly different way. And perhaps in a wildly different way. We'll see.

When PBL was first launched, I didn't entirely know what to expect, and I made that very clear to the group right from the start. I was pretty sure something good would happen, but I wasn't about to make any predictions. As time goes by, we have come to understand PBL as a mentoring and networking group, but I still am hesitant to predict the eventual outcome.

### **The Results So Far**

So what has been the outcome and what have we learned so far? Let's have a few PBL members answer those questions:

**Capt. Bartlett:** "It draws me away from the daily grind. It's a chance for a small group of fellow officers from various experiences and backgrounds to get together to discuss latest readings, Air Force issues, as well as technology cross feeds and transition issues."

**Capt. Yoshimoto:** "The networking aspect of PBL is immense. We have made contacts with people who mutually respect each other's opinions, and we can contact them in the future, regardless of current membership, to seek advice or work program collaboration. Further, this group is not about one-way mentorship from the top

**Capt. Mounce:** "The goal is to break the bonds of corporate and individual normalcy. The aim is to harness the awesome power of the military bureaucracy and channel, manipulate, and refine it into a worthwhile force, capable of immeasurable innovation."

For my part, I have loved watching and encouraging everyone's individual voyage of exploration and discovery. It's great to see their eyes open to new possibilities; to watch them connect with each other, encourage each other, and wrestle with some big issues. I've seen technical problems addressed as well as personal and professional challenges. When I stop to reflect, I realize I am on the same voyage of exploration as the rest of the group. This has been entirely new territory for me, and it's been a real adventure.

And the cool thing is that *you* can do this too, with the people you work with. You can start now: Just look around and start making a list of people you want to invite into your Project Blue Lynx group. Remember, you're looking for attitude and chemistry, not just aptitude and credentials.

Sure, it's tough to carve out the time because we are all busy. It is also a little scary to launch onto an uncharted sea, with no guarantee of positive results. But the investment you make in the personal and professional development of your local PBL crew has the potential to hugely impact this nation's defense. I hope you go do it. I'm sure glad I did.

The author welcomes comments and questions and can be contacted at [daniel.ward@rl.af.mil](mailto:daniel.ward@rl.af.mil).



# The Adventures of CM Man

Wayne Turk

**F**aster than a speeding Engineering Change Proposal. More powerful than a Document Template. Able to leap different Product Versions in a single bound. Look! Up in the sky. It's a bird! It's a plane! It's CM Man!

Yes, it's CM Man (or CM Woman, but for the sake of simplicity, let's go with CM Man)—strange visitor from another planet who came to Earth with powers and abilities far beyond those of mere mortals. CM Man—who can change the course of mighty configuration items, bend risks in his bare hands, and who, disguised as Mark Trent, mild-mannered configuration manager in a great DoD program office, fights a never ending battle for Truth, Justice, and Change Control Management.

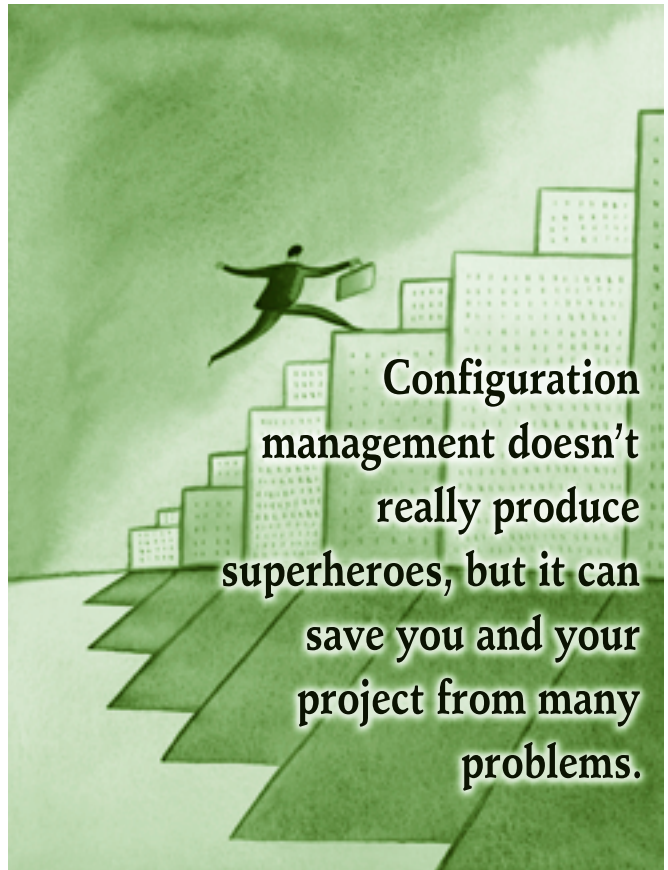
Superheroes abound in comics, TV, and the movies. It's too bad that they don't exist in real life. Or do they? There may be a superhero in your organization, protecting you from all sorts of evil villains. That person is your configuration manager, your CM Man. Okay, enough of the hyperbole. Configuration management doesn't really produce superheroes, but it can save you and your project from many problems. The CM team may seem like visitors from another planet, but their guidance and their requests are there for good reason. Let's take a look at some basic CM so we all have a better understanding.

While CM is absolutely critical to software development projects, it is important to *all* projects. According to Anne Hass in *Configuration Management Principles and Practices*, configuration “derives from the Latin *com-*, meaning ‘with’ or ‘together,’ and *figurare*, ‘to form.’” Loosely interpreting that, she says, configuration means “to form from a relative arrangement of parts.” Hass defines configuration management as the “unique identification, controlled storage, change control, and status reporting of selected intermediate work products, product components, and products during the life of a system.”

I like the simpler definition of “looking after what you've got so far.”

## Functions of CM

There are five basic functions of CM, which apply to any project. They are:



- Planning and management
- Identification
- Change management
- Configuration status accounting
- Verification and audit.

## Planning and Management

Planning and management is just what it says. It covers the normal planning to define and establish organizational responsibilities, in this case, the CM Team's responsibilities as well as the CM-related responsibilities of others. It includes determining the necessary resources and facilities that are needed. It also ensures that the appropriate CM tools, processes, and activities are available and applied. Continuous improvement is another sub-function under planning and management, as is the responsibility for writing, maintaining, and following the configuration management plan. With a slight change of

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wording, those responsibilities could apply to the planning and management function of any group in an organization or the organization as a whole. The one area that is different or unique is the responsibility to ensure data preservation and interoperability.

Data preservation and interoperability means that all of the configuration items and documentation are stored, correct, and available when needed. In other words, the CM library is maintained with all the appropriate material, and that material is up-to-date (correct versions) and accurate.

### Configuration Identification

Configuration identification determines the structure of all products and their associated documentation; defines performance, interface, and other attributes for items; provides unique identity to products, components, and documentation; prescribes identification markings (if required); modifies product and document identifiers to reflect incorporation of major changes; maintains release control and baseline definition; provides reference for changes and corrective actions; and correlates document revision level to product configuration, which enables users to distinguish between product versions, allows people to correlate a product to the appropriate instructions, and correlates items to warranty/service life. Whew! What that long, complex sentence boils down to is that configuration identification determines how document control numbers and version numbering are applied and used so that everything is labeled correctly and understandably. This article will not describe any of the numbering schemes. I will leave that to the CM Man in your organization.

### Change Control Management

During the lifecycle of a product, many changes take place. Change control management is usually a shared function of both CM and the Change Control Board. Change decisions need to be based on knowledge of the complete change impact to the project and the eventual user. That helps limit changes to those that are necessary or offer significant benefit to the project, the user or—it's to be hoped—both. The CCB will normally facilitate the evaluation of cost, savings, and trade-offs, ensuring that everyone's interests are considered. On the CM side is change control management. CM helps maintain consistency between the products and all relevant documentation. The CM process also documents and limits variances in a given product. Finally it provides for continued supportability of the product after a change.

### Configuration Status Accounting

This is a fancy name for having information on products and processes. Having the right information available enables anyone to retrieve data and background concerning change decisions and change impacts. It can answer

enquiries concerning design change planning, design problems, warranties, shelf- and operating-life calculations. It provides people with access to complete configuration information on your products and processes. It is a source for configuration history and accurate identification of each delivered product. Having that information improves the project's or the user's capability to identify, produce, inspect, deliver, operate, maintain, repair, and refurbish products. All of these actions are necessary. Without CM, that information might or might not be available, and its accuracy would certainly be questionable. And it can save you (or ruin you) with your boss or your boss's boss when there are questions.

### Verification and Audit

The final function is verification and audit of project office activities. Sometimes this is partially shared with quality assurance. For instance, CM and QA together ensure the product design provides the agreed-to performance capabilities. Other activities may fall solely under CM, such as validating the integrity of the configuration documentation and the consistency between a product and its documentation. CM is responsible for establishing a product baseline and making sure that an accurate configuration is the basis for operation and maintenance instructions, training, spares, and repair parts.

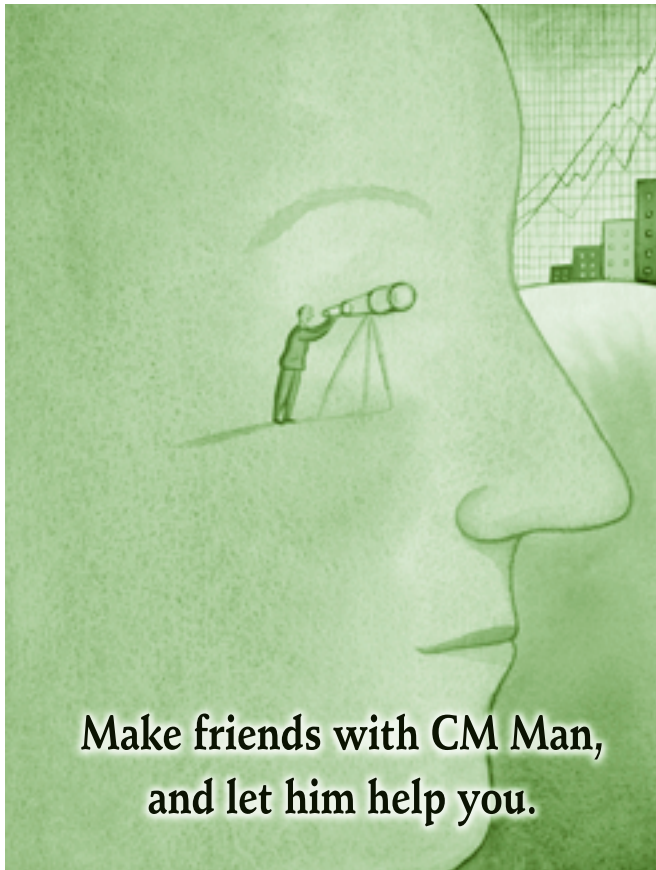
### CM Man and the Hordes of Evil

CM Man has to face many evils in projects across DoD. Below are a few examples that are typical of the problems when CM and CM processes are not used properly.

A technician flies across country to install new equipment. The equipment is there and the room is ready, but he has the wrong version of the installation guide and doesn't know it. After all the work to get everything installed, it doesn't work. After trouble shooting, he finally discovers the problem. After getting the right version of the guide, it's all fixed—but it has taken extra time and effort. It could easily have been prevented with the right version first time around.

A programmer takes what he believes is a module of source code that is part of the latest version of software and begins to make significant changes. When he tries to integrate it back into the main software program, it won't work. Why? Not because he did poor work or made a programming error, but because the version that he was using was not the latest, and his changes were incompatible with others already made. Version control is critical, especially in software.

In the 1970s, a number of C-130s were converted to AC-130 gunships. The modifications were major. One of the changes was the installation of racks of electronics in the fuselage. However, the equipment was installed in different places in the racks on many of the aircraft, creat-



**Make friends with CM Man,  
and let him help you.**

ing a maintenance nightmare. Standardization makes maintenance and safety much easier.

Two people begin to work on the same source code at the same time. Each goes in a slightly different direction with the work. Neither knows that the other is working changes, and there is, therefore, no coordination. The work of one (or both) is wasted. A good CM library and strict checkout procedures can prevent wasted efforts and conserve resources.

The Army Reserve buys a different type of server from that of the Army National Guard but plans to use the same software applications for mobilization and related activities. The applications don't work on the new servers, and significant rework on the applications is required resulting in two versions of the applications that have to be updated and tested every time there's a change. Coordination and standard equipment purchases could have saved significant dollars.

CM Man can help with these and other, similar problems. A good CM program will have:

- Procedures for placing items in the CM library
- Procedures for checkout of items for further work
- Procedures for release of items for production
- Templates for item approval
- Templates for release requests
- Templates for standard documentation

- Identification of standard equipment, software, and processes.

### **Benefits, Benefits, Benefits**

The benefits of a good CM process are manifold. One of the biggest is resource savings. Those savings come from a number of areas, such as economies of scale in purchases (100 identical servers are cheaper than 100 unique servers); ease of maintenance (maintenance information, training, and spares for that one type of server are much cheaper than for the different servers); updates and changes are less time consuming (testing a few components or builds is much faster than testing for many); and the development work is faster and cheaper without all the rework and errors generated when CM is poor. It is also much easier and faster to generate the documentation using templates and leveraging previously developed work.

People build up specific expertise. For example, a development team can concentrate on one version of equipment and its operating system rather than all of the various nuances associated with different platforms and their operating systems. This extends to the users and maintenance folk also.

CM can reduce development time. By the reuse of components, modules, software, or product configurations, good CM speeds up development as well as keeping costs down. The use of templates for document preparation can provide time savings, also.

Finally, there is a history of the project, with all of the versions of the product(s) and the documentation that goes along with each. This can be a life saver (or a career saver). It also helps, or can help, later projects. (However, it may not be worthwhile to go back and create documentation if it wasn't created originally, just to fill the squares.)

### **CM Man is Your Friend**

CM Man is not there to stop change and advancement. He is there to help. His goal is to fight the evil hordes of wasted efforts and wasted resources. He is not a superhero, but an everyday man (or woman) who can assist PMs with the development of quality products in the shortest time possible. And this article presents only an overview of CM in projects—there are a lot more down-in-the-dirt activities that CM men and women perform to keep projects out of trouble.

So don't ignore CM. Don't fight it. Make friends with CM Man, and let him help you.

The editor welcomes comments and questions and can be contacted at [rwturk@aol.com](mailto:rwturk@aol.com).



## *New Curriculum and Certification Standards*

# Systems Planning, Research, Development, and Engineering Career Field

Robert Skalamera ■ Col. Warren Anderson, USAF ■ John Snoderly ■ David P. Brown

"I should note ... that we have taken important steps that will help us to produce improved capability on time and within budget by re-energizing our approach to systems engineering. This critical discipline has always contributed significantly to effective program management."

Testimony of Ken Krieg, USD(AT&L), before the U.S. House Armed Services Committee, Sept. 27, 2005.

A primary goal of the under secretary of defense for acquisition, technology and logistics (USD(AT&L)) has been to return good systems engineering (SE) practice to the way we do business. This initiative was born of a Systems Engineering and Training Summit held at Wright-Patterson Air Force Base, Ohio, in 2003. The summit was attended by technical leaders from the Defense Department, academia, industry, and technical professional societies. The group examined many problems experienced by acquisition programs at that time, including major technical

failures, and schedule and cost overruns. A central question was whether the SE process used on defense programs since the late 1950s was insufficient and needed a major overhaul. After much examination and deliberation, the consensus was that the process was still sufficient, but it was not being consistently applied on all programs.

With that, the former USD(AT&L), Michael W. Wynne, established an imperative for OUSD(AT&L) Defense Systems to "help drive good systems engineering practice back into the way we do business." Implementation of the SE Revitalization initiative became the responsibility of Mark Schaeffer, the director, systems engineering. The revitalization effort has three major components (as shown in Figure 1): policy, guidance, and tools; education and training; and assessment and support.

### Significant Changes Already Implemented

The acquisition workforce has already seen significant changes instituted as a result of this initiative. Within the policy component, two memos were released in 2004 changing the way SE is implemented within the DoD:

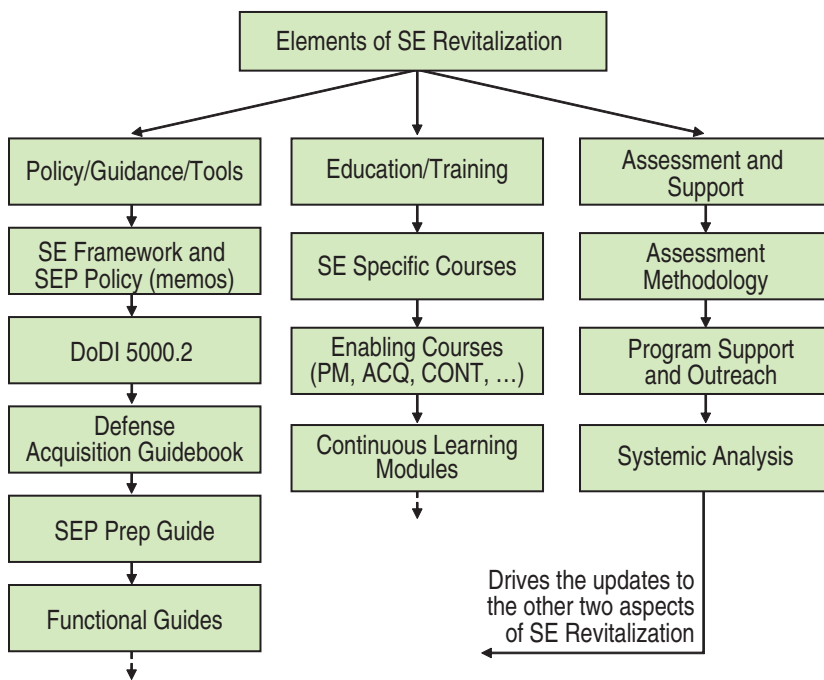
- *Policy for Systems Engineering in DoD*, Feb. 20, 2004, requires any program, regardless of ACAT [acquisition category], to submit a Systems Engineering Plan (SEP) to its Milestone Decision Authority for approval at each acquisition milestone.
- *Policy Addendum for Systems Engineering*, Oct. 22, 2004, requires each program executive officer or equivalent to designate a lead systems engineer to implement and oversee the SE efforts of programs in the PEO's cognizance, to include using event-based technical reviews with independent subject matter expert participation to assess technical maturity and risk mitigation.

The memos can be found at the OSD Web site <[www.acq.osd.mil/ds/se/publications.htm](http://www.acq.osd.mil/ds/se/publications.htm)> or through the Systems Engineering Community of Practice at <<https://acc.dau.mil>>.

**Skalamera** is deputy director, systems engineering (SE), enterprise development, OUSD(AT&L) Defense Systems. **Anderson** is deputy for systems engineering plans and policy, OUSD(AT&L) Defense Systems. **Snoderly** is DAU program director for SE. **Brown** is DAU SE course manager.



**FIGURE 1. Multi-pronged Approach to SE Revitalization**



Additionally, the *Defense Acquisition Guidebook* was published in October 2004, with Chapter 4 dedicated to sound SE practices as applied to the DoD acquisition life cycle framework. The *DAG* is an electronic document and can be found at <http://akss.dau.mil/dag/>. A guide for preparation of SEPs was also published and is available at the OSD or ACC Web sites listed above.

These initiatives laid the foundation for implementing the assessment and support component. Since made a requirement, many Acquisition Category (ACAT) ID (programs for which USD(AT&L) is the milestone decision authority), and IAM (major automated information systems for which the assistant secretary of defense for networks and information integration/DoD chief information officer is the MDA) SEPs have been submitted to OSD for review and approval. Based on review of these SEPs, OSD has refined its SEP guidance to better articulate to programs the essentials of good technical planning, technical leadership, and sound technical execution. This new guidance also contains three frameworks: one for the concept refinement/technology development phases; one for system development and demonstration/production and deployment phases; and one for the operations and support phase. Each poses five critical questions in each of five subject areas. These “5x5” frameworks serve two purposes: guidance on technical planning and the basis for OSD SEP reviews.

### Education and Training

The third component of SE Revitalization is education and training. The effort began with the SE Functional Integrated Project Team (SE FIPT) developing a new list of learning objectives for each of the three levels of Defense

Workforce Improvement Act (DAWIA) certification. As a result, the SE career path of the systems planning, research, development, and engineering (SPRDE) career field will see a completely new set of DAWIA certification courses implemented over calendar year 2006. (Note that in 2001, as a result of the assimilation of science and technology managers into the acquisition workforce, the SPRDE career field was divided into two career paths: SPRDE-Science and Technology Manager and SPRDE-Systems Engineering (SPRDE-SE).) Additionally, the SE FIPT is considering enhancements to the DAWIA certification requirements. These changes should result in better educated, more experienced personnel in technical positions within the DoD. The revised career training courses are shown in Figure 2.

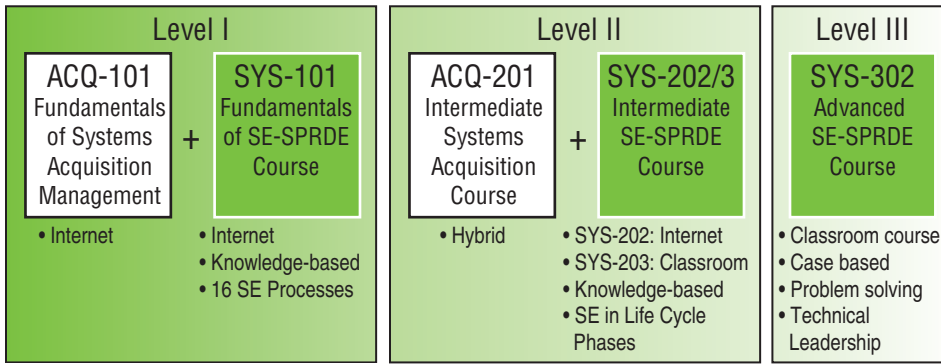
A new Level I SPRDE course, SYS-101, has been added to Acquisition 101 in the SPRDE-SE training track. This course is approximately 30 hours of distance learning and covers an introduction to systems engineering and a detailed discussion of the eight technical processes and eight technical management processes outlined in Chapter 4 of the *DAG*. SYS-101 represents a fundamental shift in training the workforce in systems engineering. Where in the past DAU has used the MIL-STD-499B SE process model, all new courses will use the *DAG* “Vee” model as illustrated in the *Integrated Defense AT&L Logistics Life Cycle Management Framework Chart* (known as the *IFC*) at <http://akss.dau.mil/ifc/>.

All SPRDE-SE career members entering the training track after SYS-101 is online will be required to take this course in addition to the prerequisite ACQ-101. The current projection is for the SYS-101 course to be online in July 2006.

Level II training will consist of a new hybrid SYS-202/203 course, consisting of 25-30 hours of distance learning and



**FIGURE 2. New SPRDE-SE Training Track**



one week of residency class work. The new course will replace the current SYS-201A/B courses. The distance learning portion of the course will cover the application of the technical and technical management processes across the DoD acquisition life cycle. The course is centered on a mythical program scenario. Students are assigned as the SE lead for a program IPT and walk through the “Vee” activities for each phase of the scenario’s development

### System Development and Demonstration Phase

This covers who, what, when, where, and how to execute the activities covered in the Level I course, as well as the event-based technical reviews that assess the technical maturity and risk mitigation of the development activity. SYS-203, the classroom course, will consist of scenarios and exercises to demonstrate the practical application of both the SYS-101 and SYS-202 online materials. SYS-202 is scheduled to go online in October 2006, while SYS-203 resident classes will begin November 2006.

The new SYS-302 will be a technical leadership course scheduled to replace the current SYS-301 course in December 2006. This course will be a significant change, instituting much more rigorous standards for completion of Level III training requirements. Where SYS-301 currently uses group case studies for learning and assessment, SYS-302 will shift the focus to individual work and assessment as well as demonstration of technical leadership skills. SYS 302 will consist primarily of six exercises with each person on the six-member team assigned an individual key technical role within a program office. The role of team leader (program lead systems engineer) will rotate among each of the team members once during the course. Each exercise presents a complex technical problem and will require individual deliverables by each team member. The team, under the direction of its team leader, must then employ critical thinking skills to arrive at a solution to the issues given in the problem. This culminates in the team leader’s defending the team solution in a brief to the instructors, who will ask questions and provide feedback. In addition to these exercises,

there will also be individual exams. Successful completion of the course will require individual performance in technical positions, demonstrated leadership, and knowledge of the subject material.

Beginning May 1, 2006, the Technical Reviews online distance learning course, CLE 003, will be a mandatory prerequisite to the SYS-201B (to be replaced by SYS-203) and SYS-

302 courses. This requirement may be augmented with additional student-selected continuous learning modules. In this way, students will be able to customize their learning experience in a way more analogous to a degree program at a university. Thus each student will receive specific core training as well as additional knowledge in areas specifically related to his or her current job. It also provides for the presentation of a wider breadth of materials without lengthening the course.

To successfully execute the new Level III training structure, the course will need students who have successfully mastered the prerequisite courses at Levels I and II, as shown in figure 2. At Level III, each team member must be capable of producing the deliverables assigned in the scenarios.

Each of these new courses has been designed so as not to repeat the material in the prior courses. Defense acquisition career managers may still waive the prerequisite requirements for an individual to attend a residential course; however, individuals receiving a prerequisite waiver must take and pass a knowledge exam before beginning the class to ensure they have the required level of knowledge to successfully complete the course. Students who have completed SYS-202/203 will not be required to take such a test. However, students will be responsible for understanding the SE processes described in Chapter 4 of the DAG. The lesson material from SYS-101 and SYS-202 will be available online as CLMs, allowing students who have taken the older courses to update their training. These modules, along with numerous other CLMs, are available 24/7 to provide training at the point of need, whenever and wherever required.

In addition to the changes to the curriculum, the SE FIPT is also reviewing the requirements for certification in the SPRDE-SE career path. With the revitalization of systems engineering and the need for better-prepared systems engineers on our acquisition programs, potential changes include the addition of a third career path—SPRDE-Systems Engineer—within the SPRDE career field. The current SPRDE-SE career path would be renamed to SPRDE-

**What's Fast,  
Up-to-the-Minute, Electronic,  
and Comes to Your Desktop  
Every Month?**

## Defense AT&L *eLetter*



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**Defense AT&L eLetter.  
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These ... changes will  
re-instill technical excellence  
in program execution and  
credibility in the acquisition  
and logistics support  
processes.

General, with essentially the same certification requirements as before, but adding the SYS-101 course to Level I certification. The SPRDE-SE career path would require longer SE-related experience as well as additional training to meet the requirements of each certification level. The clear aim is to develop more capable systems engineers.

The SE FIPT has also examined the SE training objectives and content in other career fields and curricula. We are currently monitoring the update of the SE technical content in certain critical enabling courses.

We are breaking new ground by raising the bar for certification in the SE career path. It is hoped that this new, higher standard will be emulated by other career fields within DoD. As can be seen by the discussion above, successful completion of the educational requirements will demand more in-depth training and better preparation by the student before attending in-residence courses. However, the end result should be a better prepared technical workforce who:

- Conduct technical planning upfront and continuously through a program's life cycle
- Employ sound technical leadership across all DoD programs
- Steward effective technical execution on programs.

These behavior changes will re-instill technical excellence in program execution, and credibility in the acquisition and logistics support processes—a continued emphasis under the current USD(AT&L), Ken Krieg.

The authors welcome comments and questions. Skalamera can be contacted at [robert.skalamera@osd.mil](mailto:robert.skalamera@osd.mil); Anderson at [warren.anderson@osd.mil](mailto:warren.anderson@osd.mil); Snoderly at [john.snoderly@dau.mil](mailto:john.snoderly@dau.mil); and Brown at [dave.brown@dau.mil](mailto:dave.brown@dau.mil).



# Earned Value Management

## Its Place in the Federal Budget Process

*Rex B. Reagan*



***EVM, if properly applied, affords an agency a more objective and pragmatic approach to budgetary cost effectiveness than a wait-and-see approach.***

**T**he execution of an acquisition program carried out within the framework of the federal budgetary process could be incomplete without the inclusion of a management tool referred to as earned value management—EVM.

A simple definition of the budgetary process identifies the formulation, justification, presentation, and execution as the basic steps necessary for program funding. To limit ourselves to this definition is unacceptable in an elementary identification of the basics of budgeting. To present a more complete analysis of this process, it is essential to include earned value management as an integral

part of the complete budgetary process. This management tool, if properly applied, affords an agency a more objective and pragmatic approach to cost effectiveness of a budget than a wait-and-see approach that results in action based on outdated information.

EVM constitutes a bridge that overcomes the chasm that opens when program performance indicators for investment appropriations fail to establish the indices necessary for successful program execution within existing budgetary constraints. To link acquisition and budgetary management is not the objective of this article. It is crucial, for proper execution and representation, that information be accurate, timely, and genuinely reflect budget requirements for investment programs. Present formulation exhibits may not provide the data or prepare the program manager with sufficient flexibility to achieve the objectives. However, merging of earned value data into the budget formulation process is offered as an appropriate alternative.

The ability to provide program performance criteria for costs and schedule performance during budget hearings and reviews not only documents the successful life of the program but allows for advance notice of potential problems with windows for relevant budgetary interjection, if necessary. This information is vital for developing the proper funding stream and ensuring adequate financial support for acquisition programs.

The thrust of this article is that the inclusion of EVM data is mandatory information to be reflected for designated acquisition programs. Budgets would then contain complete performance data as well as budget estimates.

### About EVM

EVM is essentially a discipline for contract administration composed of cost, schedule, and performance (earned value) data necessary for management of any acquisition project. The criteria for these metrics are standard throughout industry, yet they adapt for the multiple formulae required for forecasting projects. In 1967, 32 formal criteria based on management practices were incorporated into DoD 7000.2M. This further evolved from an in-

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***Analysis of program and budgetary activities is severely handicapped and possibly not performed adequately without the presence of earned value information.***

struction to a regulation in March 1996, with the 32 criteria becoming 35 in DoD 5000.2R, shortly afterwards replaced with industry guidelines for performance measurement. The current DoD 5000 revision in 2003 contains the significance of EVM for acquisition programs.

Program offices with cost contracts funded by investment appropriations that don't employ EVM are handicapped in their efforts to accurately report the performance of the contractor. The absence of EVM data not only handicaps reporting procedures, but also leaves a void for the comptroller, who must often be prepared for potential budgetary supplemental requests. The areas of standard indices for cost and schedules for the funded project, estimates for completing the project, potential requirements for reprogramming actions and related crucial information—all of which indicate genuine knowledge of program performance—cannot be presented to DoD management without EVM. The implementation of EVM is initiated in the formulation phase of the budget for preparation of contract award for the investment appropriations.

How does a program maintain credibility with its comptroller's office and resource sponsor, gracefully meet the acquisition milestones, and proceed successfully through all budget submissions? Not without merging related disciplines or incorporating vital segments of the federal budget process and acquisition management. Yet many program offices continue to seek the highest level of funding without complete knowledge of its acquisition phase. Cost performance reporting provides the feedback that is desperately required not only in cost contracts, but also in firm-fixed-price contracts.

Without a firm understanding of contractor performance, baseline-realignment and potential restructuring of contract ceilings would be the rule rather than the exception in the preparation and execution of reprogramming requests. Are these instruments of program management unavoidable without the application of EVM? Perhaps program offices can no longer maintain acquisition programs at any acquisition category (ACAT) level without initiating

proper and appropriate cost performance parameters into both cost and firm-fixed-price contracts.

### **The Lesson of the A-12 Program**

The history of the Naval Air Systems Command A-12 program gives clear evidence of the value of EVM data. Within an extremely short time, experienced cost analysts realized the need for further program questions. When the submittal of EVM reports ceased, it was an indication that a clear and present problem loomed in the A-12 program. While the specter of the A-12 program has faded, the message remains clear and indelible. In this particular program, the tendency remained to report the most favorable indices instead of the most realistic practiced.

There's no place for ignorance in the federal budgeting or acquisition processes. Knowledge of contractor performance is paramount in large acquisition contracts. Firm-fixed-price and cost contracts are both impacted by budgetary constraints. The indices that EVM provides are essential to measure potential success or possible failure of that contractor. Cost performance indices and schedule performance indices with estimates at completion are crucial for the program office to gauge clearly the actual costs of the acquisition before its completion. If an ACAT I program presented cost performance indices as part of its budget submission, funding levels would have been adjusted either upward or downward, depending upon cost performance reports. Savings may potentially belong to the program office as part of incentives to maintain performance or modifications to the present system under contract. Program increases may reduce future funding levels with accurate estimates at completion, while still reflecting accurate budget submissions and supporting congressional and presidential budget controls. A delay in acquisition documentation in relation to the approval and review process may be perceived differently with proper EVM data. Optimum contractor performance, resulting in budget adherence, will often compensate for documentation shortfalls.

### **Savings Resulting from Application of EVM**

The savings or projected savings resulting from superior management have allowed a portion of those savings to be retained by the program office responsible for the program. This is a formidable reason for implementation of EVM for any project funded by an investment appropriation.

The psychological effect of EVM will further aid in the discipline of financial responsibility by the program management office and the contractor for bringing the project within the contract baseline.

Payments will be performance-based and commensurate with the work performed on the contract. This is also a reason why the Office of Management and Budget guid-

ance directs that EVM should be used on fixed-price contracts for measuring the goals of cost, schedule, and performance.

### **Current Direction for EVM in Budget Exhibits**

Programs funded by the investment appropriations are not required to include earned value information at the Service level in their budget submissions. The Office of Management and Budget strongly encourages the use of these data with both cost and firm-fixed-price contracts. For defense issues, quantitative measures are imperative for objectivity—often being the optimum instrument in political gamesmanship. EVM will reflect contractor performance, which can be utilized in all phases of budget submission, especially in the formulation stage where additional funds may be required. Without submission of this information into the budgetary process, senior officials are not informed of the progress of acquisition programs that support national security.

Analysis of program and budgetary activities is severely handicapped and possibly not performed adequately without the presence of earned value information. Programs supporting a Service's objectives and goals that initially require supplemental budget submissions or major reprogramming actions may instead require restructuring after examination of contract performance. Quantitative options to program decisions are limited when based solely on budget data and exhibits presented by Services. From normal projections using standard government and industry formulae, an estimate at completion can be derived to indicate a significant overrun on the contract at completion also accompanied by a delay in delivery of the contracted product. This realistic, albeit simplified, metric depiction of a project could be managed and prepared for the inclusion of EVM data during budget reviews to pinpoint current project funding and delivery.

During the budget hearing and review cycle, the submission of earned value indices will contribute significantly to the program's acquisition and funding strategy. The indicators of sustained contractor performance will assist in providing required justification for possible additional funding or decrements to existing funding, and are a solid basis for program savings and retaining those savings for alternative application. The presentation of EVM data will also provide up-front and official notice of any program operating at or below the level that the government and the DoD deem acceptable.

The inclusion of summary EVM data into the budget submission accomplishes several objectives, among them:

- Broader scrutiny by the Office of the Comptroller of contractor performance relevant to major programs
- Documentation for potential budgetary adjustments for decrements or increments within the program funding scheme

***The value of EVM will never be greater than when it is applied to cost-type contracts, no matter the origin of funding.***

- Basis for more accurate program realignments, acquisition reviews, contract strategy, and milestone adjustments
- Closing the gap between acquisition and budgetary personnel when examining program funding issues.

Furnishing this information is the responsibility of the reporting program management offices as an additional exhibit. If the information is not provided, routine funding will continue and be subject to ordinary scrutiny, with budget reviewers noting, for the record, non-compliance for submission of necessary documentation. The format for furnishing the data is determined by the Office of the Comptroller with significant assistance from acquisition program integration. This format is to be followed by each of the Service comptroller organizations.

The value of EVM data will vary depending upon the type of contract, contractor performance and history, program office, and product under contract. The value of EVM will never be greater than when it is applied to cost-type contracts, no matter the origin of funding. Frequency to increase the ceilings of fixed-price contracts could be a potential area of contention with the presence of EVM data.

In summary, additional cost, schedule, and performance data are necessary for accurate and proper budgeting of major assets at the Services level and above for major programs. That information must be quantitative in nature and supportive of budgetary submissions with the goal of objectivity. Including earned value data, information, or analyses supports the process, and the cost to implement EVM and actively engage its discipline is far outweighed by the benefits realized by both the program office and the respective Service. National security cannot be served or supported by programs that are above budget authority, outside scheduled completion parameters, or noncompliant with defense priorities.

**The author welcomes comments and questions and can be contacted at [rex.reagan@dhs.gov](mailto:rex.reagan@dhs.gov).**





## In the News

### THE AUDITORS ARE COMING! THE AUDITORS ARE COMING!

Richard K. Sylvester

If you're an acquisition professional who works with military equipment programs, you need to prepare for one of the biggest New Year's events in Department of Defense history. No, we're not having a huge party, but we are sending out a serious invitation.

In early 2007, the inspector general is going to invite independent auditors to begin their audit of DoD's military equipment programs. And here's the good news: We'll be ready for the auditors, thanks to the Military Equipment Valuation (MEV) initiative.

In case you haven't heard, MEV is a DoD-wide effort to capitalize, depreciate, properly account for, and report military equipment. Basically, we're treating military equipment as capitalized assets instead of expenses, prorating their value over their useful life and recording those values on financial statements that are subject to audit.

With the help of program management offices across the Department, the Property & Equipment (P&E) Policy Office has established the initial value of each item of military equipment in the DoD inventory, using a consistent approach that can be audited. Now we have to update that program information and ensure it's ready for audit.

#### Updates in CAMS-ME: Due September 30, 2006

The Capital Asset Management System-Military Equipment (CAMS-ME) is the system that the P&E Policy Office and the Space and Naval Warfare (SPAWAR) System Center-San Diego have developed to consolidate the average cost of assets, update total program expenditures, depreciate assets over their useful life, and record asset status. Points of contact who have already been designated in all of the Services will use the CAMS-ME portal Web-based tool to update their military equipment addition, disposal, and transfer data. Training on CAMS-ME for POCs is now being offered as a Web-based module, accessible from the Quick Links menu on our Web site: [www.acq.osd.mil/me](http://www.acq.osd.mil/me).

#### Management Assertion for Audit Readiness: Due December 31, 2006

According to Section 1008 of the 2002 National Defense Authorization Act, the under secretary of defense comp-

troller is responsible for ensuring that resources expended on financial statement preparation are minimized until the reporting entity can demonstrate that it is ready for audit. Typically the financial management community would take care of this. But military equipment is unique.

Information about military equipment must be obtained from the acquisition and logistics communities, so individuals in these communities are required to assert to the accuracy of the information they give to the financial management community. In fact, these communities are involved in four management assertions:

- The Valuation Assertion, which verifies that the assets have been valued in accordance with federal accounting standards and generally accepted accounting principles
- The Completeness Assertion, which verifies that all the programs on the Property, Plant & Equipment (PP&E) line item of the balance sheet that should have been reported have been recorded and reported

### Preparing our military equipment programs for audit is the law.

- The Rights and Obligations Assertion, which verifies that the Service reporting the item does in fact have the rights to and "owns" the equipment
- The Existence Assertion, which verifies that the military equipment being reported does in fact exist.

Working with the military departments and defense agencies, the P&E Policy Office developed a recommended approach for completing the assertions. To learn more about that approach, visit [www.acq.osd.mil/me](http://www.acq.osd.mil/me) and click on "Management Assertion Training" in the Quick Links menu.

#### Dotting the I's and Crossing the T's for Our Warfighters

Preparing our military equipment programs for audit is the law. It also has tremendous benefits: It demonstrates renewed responsibility to the taxpayer, and it gives senior management officials the ability to approach Congress and the American people with better knowledge of our military equipment programs—and not just the number of vehicles, ships, and planes, but also what each costs, its current value, and how long it will operate. Ultimately, this information, verified by an independent auditor, will help us to make investment decisions that provide the best support for our warfighters.

*Sylvester is deputy director for property & equipment policy within the Acquisition, Resources and Analysis Office, Office of the Under Secretary of Defense (AT&L).*



## In the News

### ARMY NEWS SERVICE (FEB. 22, 2006) **ARMY CREATES NEW CAPABILITIES INTEGRATION CENTER**

**W**ASHINGTON—The Secretary of the Army signed a General Order Feb. 15, to roll out the Army's organization responsible for integrating Future Combat Systems capabilities into the force as soon as practical.

The Army Capabilities Integration Center, or ARCIC, was formed from the resources and organization of the U.S. Army Training and Doctrine Command Futures Center.

With the new name and new mission, the ARCIC will be the lead Army agency for coordinating how best to integrate warfighting capabilities into the force and among the military services and with other agencies.

"We are retaining the complete mission set from the Futures Center and adding the tremendous responsibility for integrating capabilities into the modular force," said Lt. Gen. J. Mark Curran at a media roundtable Feb. 16 during the Winter Association of the United States Army conference in Fort Lauderdale, Fla. Curran, formerly director of the Futures Center, will serve as the ARCIC's director.

"This integration goes beyond materiel items and includes all DOTMLPF (doctrine, organization, training, materiel, leader development, personnel, and facilities) domains," Curran said. "We must work the synchronization and coordination of agencies across the Army and the Joint community to ensure we accelerate inserting capabilities into the modular force, when these are ready, to meet an essential need."

The ARCIC's responsibilities will include the Future Combat Systems, the modernization program for the Army to move from the current force to the future force. The program provides soldiers with leading-edge technologies to improve their capabilities in fighting the enemy in complex environments.

"Our role in inserting (Future Combat Systems) capabilities into the force when ready is critical to enabling the Army to evolve rapidly while engaged in this long war," Curran said. "The Future Combat Systems program is the fastest, surest way to modernize the Army."

The ARCIC's work will pave the way for brigade combat teams to use Future Combat Systems technologies, according to Army senior leaders. It will provide impetus

and direction from concept to capability development for full spectrum operations, as well as shape the future for the next generation of soldiers.

The ARCIC, through the TRADOC commanding general, will be responsible to the Army Secretary and Army Chief of Staff. It will be headquartered at Fort Monroe, Va., with a forward element in Arlington, Va. The National Capital Region office will be responsible for working with the Army Staff, Joint Staff, Office of the Secretary of Defense, and other agencies.

"The ARCIC is responsible for integrating and synchronizing the activities of many separate agencies and Headquarters Department of the Army elements," said Col. Rickey Smith, director of the ARCIC-Forward. "Currently, many segments of our Army individually provide pieces of the overall DOTMLPF composite picture. The ARCIC will lead in determining if the right force capability requirements are being worked, or whether we are closing the gaps needed to support our soldiers and leaders for today's and tomorrow's requirements."

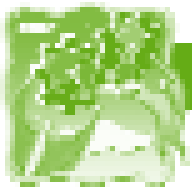
This represents a significant change in how the Army does business, Smith said.

"The ARCIC represents a real, tangible shift," he said. "Here are two examples. In the very near future, the Army will establish an Evaluation Brigade Combat Team for the purpose of evaluating and testing FCS technologies in order to spin them out to the modular force. The ARCIC will have the key role in determining what the EBCT tests, and determining whether these technologies meet the requirements."

"The ARCIC will also serve as the soldier's representative, ensuring that requirements are being met," he said.

Since wargaming, concept development, and experimentation across DoD have implications for the fielding of needed capabilities to the current and future Joint Force commander, "The ARCIC is a permanent organization designed to serve as the coordinating agent among all stakeholders involved in the force capability requirements process, including requirements identification and integration," Smith said.

"The ARCIC will stay engaged at all levels to ensure integrated current and future force developments are considered in the sister services, Joint Staff, and Army acquisition and budget decisions," Smith said. "Decisions that affect Army capabilities now and in the future will



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cause us to re-examine our operational concepts and shift our priorities and resources accordingly.”

*Editor's note: Information provided by the U.S. Army Training and Doctrine Command Public Affairs Office.*

### OGDEN AIR LOGISTICS CENTER PUBLIC AFFAIRS (FEB. 23, 2006) RAPTOR CAPABILITIES PRESENT NEW CHALLENGES

G. A. Volb

**H**ILL AIR FORCE BASE—The F-22 Raptor's unequaled capabilities bring some unique challenges to Air Force maintainers at Ogden Air Logistics Center, not the least of which is gearing up a support machine to handle the maintenance workload when the first Raptors arrive for modifications in April. Approximately 18 of the 21st century fighter aircraft will see depot maintenance at Hill throughout the first year.

“The first aircraft,” according to Mike Dooner, 309th Aircraft Maintenance Group F-22 production chief, “will have the lighting system for night air-to-air refueling system upgraded ... along with a few other minor factory modifications.”

The challenge for maintainers is keeping up with the latest weapon system technology, he said. “But our technicians and support personnel have spent most of their careers working with new technology,” he added, “so it won't be a new challenge.” But preparing for the workload is an adventure in itself.

Depot activation for a new weapon system always presents challenges, but even more so for the F-22 given its high-end technology and sensitive profile.

“We're partnering with the aircraft's original equipment manufacturers (Lockheed-Martin and Boeing) to ensure we have the supply support we need,” said Don Hallford, F-22 program manager.



Bret Hickenbotham, a 17-year aircraft structural mechanic with the 309th Aircraft Maintenance Group, identifies various areas on the F-22 Raptor trainer that will be affected by a modification for night air-to-air refueling, while also inspecting its structural integrity.

U.S. Air Force photograph by G. A. Volb.

Maintainers have to work supply line issues—making sure needed parts are on hand among other things, building a work area specifically for the F-22, and developing training requirements for mechanics.

“Most maintainers will tell you that being on the ground floor of a new weapon system is unique,” said Dooner. “A lot of hard work goes into getting it off the ground but in the end, you have the opportunity to implement new ideas and ways of doing business. We have the chance to start anew, eliminating waste from our processes and procedures up front.

“And while the F-22 presents challenges when it comes to stealth technology, we've been working B-2 bomber maintenance for a while—about seven years—so we have experience in that field as well,” he emphasized.

The maintainers continue, however, to take a proactive approach by sending personnel to field training detachments for hands-on schooling.

By virtue of the F-22 design, it's hoped maintainers will find their work a little more user-friendly. According to officials, the Raptor will have better reliability and maintainability than any

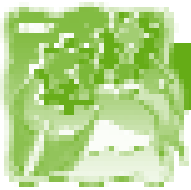
fighter aircraft in Air Force history.

An F-22 squadron also requires less than half the airlift of an F-15 squadron to deploy. Plus, the aircraft's increased reliability and maintainability pays off in less manpower to fix it and the ability to operate more efficiently.

“People are excited to start working on it,” said Dooner. “We have heard about this aircraft for years now, and the maintenance and support teams are eager to dive in and get their hands dirty.”

Dooner said experienced technicians and support personnel from all over the base will help implement the





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workload associated with the F-22 coming in April. Initially, maintainers are looking at between 30-35 flow days to turn around each aircraft.

*Volb is with Ogden Air Logistics Center Public Affairs, Hill AFB, Utah.*

### AIR FORCE PRINT NEWS (FEB. 24, 2006) JOINT STARS KEEPING EYE ON THE GROUND

*SSgt. Kevin Nichols, USAF*

**B**ALAD AIR BASE, Iraq (AFPN)—High over Iraq, an E-8C Joint STARS aircraft surveys hundreds of miles of the country at a time, looking for insurgent activity, controlling those situations, and taking action if needed.

The aircraft's crew ultimately keeps ground troops safer by communicating with convoys and directing air power to quell the enemy.

The Joint Surveillance and Target Attack Radar System mission has two parts. The first is to radio relay with convoys throughout Iraq. Through radio and a text-messaging system, convoys can contact Joint STARS for help.

Air National Guard Maj. Thomas Grabowski, senior director on the aircraft, deployed from Robins Air Force Base, Ga. He said the Joint STARS is the 911 call for convoys on the ground.

"So if one of these convoys gets in trouble—they break down, they have troops in contact, small-arms fire, or any type of a problem—they call us," Grabowski said. "We're like the 'On-Star' for the ground commander."

The second part of the mission is to deter insurgent activity on Iraq's borders. Junior enlisted airmen are in charge of the multimillion dollar radar attached to the bottom of the aircraft that zeros in on the enemy 100 to 200 miles away. Grabowski said the advanced system allows them to see the enemy without the enemy seeing them.

"Think about where you live at home and then think of a place 125 miles from that location. If you were to move out of your driveway and we were orbiting 125 miles away, we would see you move. So it's that advanced," the major said.

Joint STARS is truly a joint mission aircraft with Army, Air Force, and Marine aircrew members. Air National Guard Airmen add total force flavor as well. Army Maj. Clifton Hughes, deputy mission crew commander, is also deployed from Robins. He said he works closely with Grabowski and the other Air Force folks on every Joint STARS mission.



SOUTHWEST ASIA (AFPN)—Air Force Master Sgt. Michael Winans checks the nose gear wheel bearing cap during his pre-flight inspection of an E-8C Joint Surveillance and Target Attack Radar System aircraft. Joint STARS provides command and control, intelligence, surveillance, and reconnaissance. The E-8C is assigned to the 12th Expeditionary Airborne Command and Control Squadron. Winans is a flight engineer with the 116th Air Control Wing, Robins Air Force Base, Ga.

*U.S. Air Force photograph by Master Sgt. Lance Cheung, USAF.*



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“While the Army and Marines are keeping in close contact with convoy commanders, I can then coordinate with the Joint STARS Air Force assets on the aircraft to direct air support either as a show of force or to take out the enemy,” he said.

A typical mission can last from 10 to 20 hours in flight after refueling in the air. The aircraft brings such a capability to the fight that many convoys won’t go out on the road unless Joint STARS is airborne.

A total of \$300 million worth of technology goes into this aircraft. What comes out is full-spectrum dominance and reconnaissance capability that ensures peace of mind to U.S. forces on the ground that someone is always watching their backs.

*Nichols is with U.S. Central Command Air Forces Public Affairs.*

### MARINE CORPS AIR GROUND COMBAT CENTER (FEB. 24, 2006)

#### SAVING LIVES WITH MARINE ARMOR KITS AT THE COMBAT CENTER

*Lance Cpl. Michael S. Cifuentes, USMC*

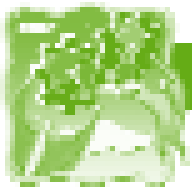
**M**ARINE CORPS AIR GROUND COMBAT CENTER TWENTYNINE PALMS, Calif.— According to J.T. Coleman from the Army Safety Center at Fort Rucker, Ala., vehicle accidents, involving both tactical and non-tactical vehicles, are the leading cause of non-combat fatalities in Iraq as of May 18, 2004. Most result from excessive speed and not wearing seat belts, he said in an interview with Donna Miles, American Forces Press Service.

Most accidents occurred during convoys in forward areas, with speed a factor in more than half of the accidents, and failure to use seat belts contributing to the severity of injuries in almost half of all humvee accidents, said Coleman.



Marine Lance Cpl. Steven Villa, a 19-year-old engine mechanic with 1st Maintenance Battalion, 1st Marine Logistics Group, drills holes into the body of a humvee at the Combat Center’s Exercise Support Division motor pool Feb. 20, 2006.

Photograph by Lance Cpl. Michael S. Cifuentes, USMC.



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The Marine Corps connected the problem to pre-deployment training, said Kyle E. Garvin, motor transportation maintenance supervisor, Exercise Support Division.

“Motor vehicle accidents continue to kill Marines in Iraq and during training,” said Garvin. “We believe it is due to the added load Marine Armor Kit that has been installed in all humvees in Iraq. Drivers are not training with that load during pre-deployment training, and when they get to Iraq they have to adjust to the added amount of weight from more armor on their vehicles.”

The MAK is to help shield servicemembers in Iraq from the effects of improvised explosive devices and other ballistic battlefield dangers. Motor transportation mechanics and civilian contractors are now installing the MAK, and it is adaptable to both the two-door and four-door humvees. Components of the kit include reinforced doors with ballistic glass, flank protection kits, gunner shield kits, and an air-conditioning system. The kit adds 3,500 pounds to the humvee’s original 7,210 pounds—roughly 50 percent more weight.

“The priority focus with the kit is to get as many as we can on the humvees we have here,” said Garvin. “It is not the same vehicle any more, and the Marines need to experience that before they operate them in Iraq.”

Along with its increased protection comes the increased force from the weight and velocity it carries. Marines in Iraq can be slow to discover that the stopping distance and following distance during convoy operations must be increased, added Garvin.

“The difference is big between the humvees without the kit and the humvees with the kit,” said Cpl. Jose D. Solis, motor transportation operator with ESD. “Yes, the humvee looks like it can survive some blasts and AK-47 rounds, but it is harder to maneuver. You can feel how much heavier the vehicle is. Now, the driver has to take more precautions. The acceleration is slower and the stopping distance is larger. There’s more weight behind the wheel that can cause twice the damage. Dismounting and mounting into the vehicle could also take a bit longer as well because the doors are heavier. I think it’s very important to train with these vehicles now, rather than learn the difference in Iraq. Time is on the line out there, and that can mean lives. It’s a better vehicle that can also be dangerous to Marines.”

The Marines executing Mojave Viper aboard the Combat Center are beginning to get the chance to test out the MAK, said Garvin. ESD is making efforts to provide the vehicles with the kit to every unit that comes to train in the month-long, pre-deployment exercise.

Ten civilian contractors and 20 Marines from Marine Logistics Division, based at Camp Pendleton, Calif., were tasked with helping the Enhanced Equipment Allowance Pool here in putting the MAK on more than 80 vehicles, said Garvin.

So far, the Combat Center has roughly 50 vehicles completed for exercise purposes, and training for better vehicle handling and safety is already underway, added Garvin.

“Taking these vehicles out on training evolutions and convoy operations will definitely cut down on motor vehicle accidents in Iraq,” said Garvin. “The mission is to make drivers aware of the weight difference, and eventually, handling the vehicles will become second nature to them again.”

### AIR FORCE MATERIEL COMMAND NEWS SERVICE (MARCH 1, 2006) **BIG LEAP FORWARD IN DETECTING GROUND TARGETS FROM COSMOS**

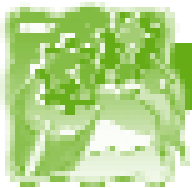
*Michael P. Kleiman*

**K**IRTLAND AIR FORCE BASE, N.M. (AFPN)—When launched in 2010, a football-field-in-length demonstrator radar antenna weighing more than five tons will serve as the forerunner for the future of America’s intelligence, surveillance, and reconnaissance assets in space.

Administered by the Air Force Research Laboratory’s Space Vehicles Directorate here, the innovative space-based radar antenna technology, or ISAT, program focuses on developing systems to deploy extremely large (up to 300 yards) electronically scanning radar antennas flying 5,700 miles above the Earth’s surface and providing improved ground target detection to the warfighter.

“These huge antennas will enable the revolutionary performance required to conduct tactical sensing from space, including missions like continuous and reliable tracking of surface targets,” said Dr. Steven A. Lane, ISAT program manager. “Since it uses radar, it is not limited by cloud coverage and can operate at night, unlike optical systems.”





## In the News

Originated in 2002, and sponsored by the Defense Advanced Research Projects Agency at Arlington, Va., the ISAT program also involves participation by the laboratory's sensors directorate at Wright-Patterson AFB, Ohio, and information directorate at Rome Laboratory, N.Y., as well as NASA's Langley Research Center at Langley Va., and Jet Propulsion Laboratory in Pasadena, Calif.

In addition, two contractor teams—Boeing Co. and Raytheon Co., as well as Lockheed Martin Corp. and Harris Corp.—are competing to build the 100-yard-sized flight experiment. Following the spacecraft's critical design review process in June, DARPA will select one of the contractor pairings to advance the project, with recommendations from the space vehicles directorate.

Operated out of Detachment 12 of the Space and Missile Systems Center here, the DoD Space Test Program will furnish the evolved expendable launch vehicle flight opportunity, referred to as STP-2, to propel the large, foldable ISAT flight demonstrator into low Earth orbit, about 620 miles above the planet. Det. 12 will also operate the spacecraft from the Research, Development, Test, and Evaluation Support Complex.

However, before the planned liftoff occurs at Cape Canaveral, Fla., in four years, the ISAT spacecraft will be developed, integrated, and tested at the contractor facility with oversight provided by the space vehicles directorate.

Technologies to be developed and demonstrated on the ISAT flight experiment include advanced antenna architectures and structures; lightweight radiation-hardened materials and electronics; reliable deployment technologies and mechanisms; compressible components and materials; as well as advanced metrology and calibration concepts for large radar antennas.

The multimillion-dollar project's primary goal, however, is assisting the warfighter through development of tactical grade, ground-moving target indication capability. This ISR tool will enable the tracking and identifying of targets with precise resolution and scanning in multiple areas of interest.

"The primary reason that the space vehicles directorate was selected to carry out this flight experiment for DARPA is our rich history and expertise in each of these technology areas. We can apply years of research and engineering conducted for other programs toward the successful completion of ISAT," Lane said.

The 20-plus member government ISAT management team is currently working on ensuring the demonstrator's successful mission in 2010. To achieve this objective, the group has concentrated on four specific project areas: structures, radar, metrology, and calibration, as well as systems engineering, integration, and testing.

Because of the antenna's large size, which prevents ground testing of the integrated system before launch, there is an unprecedented emphasis on modeling, simulation, and ground-based risk-reduction demonstrations. These will play a crucial role in the flight experiment's outcome.

"During its projected one-year mission, the ISAT flight experiment will test enabling technologies and gather information critical for the eventual development of an operational system," Lane said. "One of the key benefits of this experiment is that we will improve our modeling and simulation paradigm for large deployables (extremely large, light-weight structures), which will benefit many future missions beyond ISAT."

*Kleiman is with Space Vehicles Directorate Public Affairs at Kirtland AFB, N.M.*

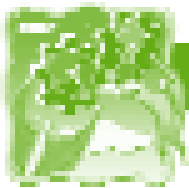
### **SPACE AND MISSILE SYSTEMS CENTER PUBLIC AFFAIRS (MARCH 2, 2006) GPS HELPS WARFIGHTERS TRACK 'BAD GUYS'**

*Maj. April Jackson, USAF*

**L**OS ANGELES AIR FORCE BASE, Calif. (AFPN)—When U.S. forces get to Iraq and Afghanistan, they're finding dry, featureless terrain with no real landmarks or points of reference to use when they travel across these wide-open and often dangerous landscapes.

In the past, maps and a compass were the decisive tools used by servicemembers to track down the enemy and find their exact location in theater.

That's no longer the case. Warfighters are now turning to a 12-channel device known as the Defense Advanced Global Positioning System Receiver, or DAGR, to get vital information. A screen about the size of a square yellow sticky note transmits invaluable maps, satellite sky view information, and situational awareness so that fielded forces can determine their position and then go back to a map to plot where the enemy sits, according to Army Col. Philip LoSchiavo, a program manager for GPS user equipment here.



## In the News

"GPS has become a vital part of what the military does today, and its use will increase over time," said Dave Williamson, deputy product manager. "All units that are currently going over to Iraq are equipped with DAGR before they get there."

The Navstar GPS Joint Program Office developed and continually enhances this device, which replaces the last generation of equipment known as Precision Lightweight GPS Receivers.

Since 2004, more than 33,000 DAGRs have been fielded to the Air Force, Army, Marine Corps, Navy, and foreign military forces, said Army Capt. Kurt Threat, another program manager.

The Air Force has tested 941 units while the Army has fielded 31,000 devices. The initial \$490 million contract for the DAGR will run for eight years with two versions continually being updated with new software and hardware.

The DAGR weighs less than a pound and is small enough to fit easily into the palm of the hand, but it packs a huge punch. Forces can stand in a desolate location and receive real-time position, velocity, navigation, and timing info, Threat said.



The Defense Advanced Global Positioning System (GPS) receiver (DAGR).  
Image courtesy NAVSTAR GPS Joint Program Office.

"We get rave reviews from the soldier," Williamson said. "It is a quantum improvement over the previous GPS receiver, the PLGR, because it's lighter in weight, smaller, uses fewer batteries, picks up the satellites more quickly, and it's more user-friendly."

The DAGR, which costs \$1,832 per unit, is also less vulnerable to enemy actions, Threat said. It's built to be much more difficult for unfriendly forces to jam signals and transmit false information or "spoof" our warfighters.

Forces can "utilize it better in a more hostile jamming environment," LoSchiavo said. The capability "allows use of electronic unclassified crypto keys."

Although it's primarily for land users, DAGR can also be used in water-borne vehicles and can be mounted or hand-held.

Future plans call for buying more than 34,000 DAGRs and developing the next line of receiver equipment that will eventually follow the DAGR, LoSchiavo said.

*Jackson is with Space and Missile Systems Center Public Affairs.*

### AMERICAN FORCES PRESS SERVICE (MARCH 3, 2006) **EUROPEAN COMMAND, LOGISTICS AGENCY SIGN AGREEMENT**

*Maj. Pamela A.Q. Cook, USAF*

**W**ASHINGTON—A new agreement between U.S. European Command and the Defense Logistics Agency spells out the level of service that EUCOM expects and that DLA agrees to provide in support of the theater mission.

Officials here said this is the first "performance-based agreement" between DLA, at Fort Belvoir, Va., and a combatant command.

Air Force Gen. Charles Wald, U.S. European Command deputy commander, and Navy Vice Adm. Keith Lippert, Defense Logistics Agency director, signed the agreement here yesterday. George Johnston, the DLA plans officer assigned to EUCOM, described the new agreement as a "pay-for-performance" system that spells out what each party expects and agrees to.

This agreement replaces an April 2001 memorandum of agreement between the two organizations and stems



from a 2003 Defense Department requirement that component sources of supply, such as DLA, assume full responsibility for satisfying warfighter requirements by working directly with the warfighters. Previously, DLA has only signed such agreements directly with the military services while maintaining other agreements with combatant commands. This accord forms a template that other combatant commands can use with DLA, Johnston said. EUCOM's component commands will negotiate agreements through their Service headquarters.

"By having this agreement directly with EUCOM, DLA will be able to provide better-defined logistics support plans that provide a stronger strategic and operational partnership between EUCOM warfighters and DLA," Lippert said. "We will hold periodic meetings with EUCOM to assess how well DLA is meeting their requirements and will jointly establish metrics for that purpose."

This agreement spells out specific activities that DLA will provide within the EUCOM theater, such as maintaining a Defense Distribution Center, Defense Energy Support Center-Europe, Defense Reutilization and Marketing Service, and the Document Automation and Production Service-Europe, among other field activities. It also specifies how DLA will assign liaisons and planners to work with EUCOM.

"We in the Defense Logistics Agency understand that new ideas are needed to meet EUCOM's expeditionary nature of operations and desire to engage more to the east and south," Lippert said. "We are fully aware that DLA must become more expeditionary. To that end, DLA has a team of experts in the areas of waste disposal, food, fuel, medical, and other supplies ready to deploy anywhere in this theater to assist with any contingency."

*Cook is assigned to U.S. European Command.*

### NEW ARMY FINANCIAL MANAGEMENT INITIATIVE—GFEBS

**T**he U.S. Army is overhauling its business and financial management functions by eliminating redundant or non-compatible systems; standardizing business processes; and evaluating how to better manage resources. Spearheading this effort is the General Fund Enterprise Business System (GFEBS).

Enterprise Information Systems is a Web-based Enterprise Resource Planning solution that will enable the Army to compile and share accurate, up-to-date financial and accounting data across the Service. Leveraging

commercial off-the-shelf business enterprise software, GFEBS will supply Army and DoD leadership with standardized, real-time financial data and business information, empowering them to make strategic business decisions that have a direct and positive impact on America's warfighters.

The system will streamline the Army's current financial management portfolio, facilitating the replacement of at least 28 expensive, overlapping, and redundant financial and accounting systems including the Standard Finance System, Standard Operation & Maintenance Army Research & Development System, and the Defense Joint Accounting System. All Army components (Active, National Guard, and Reserves), major commands, Army installations, and the Defense Finance and Accounting Service (DFAS) will benefit from GFEBS implementation.

**Release 1.1**—A technical demonstration of Real Property Inventory for Fort Jackson, S.C., will be completed in May 2006. Following a phased-in deployment strategy, GFEBS will be fully functional at all Army and DFAS locations worldwide by 2009.

When fully implemented, GFEBS will be the Army's system of record for financial accounting and management. It will become one of the world's largest enterprise financial systems, managing \$100 billion in annual spending with more than 79,000 end-users at more than 200 sites around the world.

With its enterprise nature and global reach, GFEBS will provide the Army with the financial management tools necessary to make business decisions that result in a strategic advantage on the battlefield.

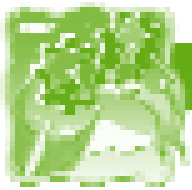
Point of contact is Cherie Smith at [Cherie.Smith@hqda.army.mil](mailto:Cherie.Smith@hqda.army.mil) or visit the GFEBS Web site at <http://www.gfebs.army.mil>.

### AMERICAN FORCES PRESS SERVICE (MARCH 14, 2006) "JOINTNESS" BECOMES KEY FOCUS IN DEVELOPING MILITARY CAPABILITY

*Donna Miles*

**W**ASHINGTON—When U.S. forces first deployed to Iraq and Afghanistan, the Services had several different systems in place to track "blue," or friendly, forces. But those systems didn't "talk" to each other, leaving big gaps in a joint forces commander's ability to see the big picture.





## In the News

That's no longer the case. The Blue Force Tracker, developed quickly through a U.S. Joint Forces Command initiative, provides full situational awareness to battlefield commanders. The digital system uses a satellite network to provide detailed information on friendly and enemy units up to 5,000 miles away. That translates into better coordinated operations and less risk of fratricide. Air Force Maj. Gen. William Rajczak, the command's deputy director for joint requirements and integrations, calls Blue Force Tracker an example of the ongoing effort to make military forces truly joint.

While praising the Blue Force Tracker system, Rajczak told American Forces Press Service the ultimate goal is to transform the way military equipment and weapons systems are developed so the interoperability concept drives the train.

"We try to develop processes and get joint at the beginning," Rajczak said. "We can do things a lot better if we do them together in a joint context."

Joint Forces Command is working with the Services, the Joint Staff, and the DoD staff to introduce "jointness" into the capability development process. By working together, these entities can come up with better equipment and systems that not only work across the board, but also cost less to develop and field, Rajczak said.

"We're striving to make it so individual Services can work together and build on each other's strengths while minimizing any gaps (in capabilities) that exist," he said. "By doing so, we're able to meet warfighters' needs and to do it in the most effective and economical method possible."

That's the concept behind JFCOM's drive to come up with a joint command and control system to replace an estimated 150 current systems currently in use, as well as the "phraselator," a hand-held device to serve as a translator when there's no linguist around.

The Defense Advanced Research Projects Agency and private companies developed the new phraselator to help troops in Iraq communicate with local citizens, Rajczak explained. Users speak into the device, which translates their English into Iraqi, or punch a button to call up the desired phrase. Troops in Iraq who tested the phraselator gave it the thumbs up, saying it promoted candid one-on-one conversations with Iraqis. Now, beginning in January, it will be fielded to the theater, Rajczak reported.

Ultimately, developers say the phraselator will translate English phrases into as many as 30 foreign languages. U.S. European Command has shown strong interest in using it for operations in Africa.

The development and fielding of the phraselator reflects a new approach to acquisition that Rajczak believes shows great promise in putting emerging technologies into joint warfighters' hands. While the defense acquisition system may work for major weapons systems, it's too slow and too complicated to quickly get the latest information technology to the field before it's replaced with a better system, he said.

"This is a different approach to acquisition," Rajczak said. "The trick is to be as broad in your requirement as you can and allow vendors to show you their best wares. Then, put it in the hands of warfighters earlier in the process to determine if it's appropriate to the need, get their input, and go back and refine it."

Rajczak said he expects this approach to become the standard as the Services strive toward fielding systems



A U.S. Special Forces soldier uses the phraselator device with the debriefing module to determine where enemies have gone and where weapons and explosives are stored in Iraq during Operation Iraqi Freedom. DoD photograph.



they can all use faster and less expensively than if they developed them separately. "There's a real agreement in principle about working together," Rajczak said. "The advantages are evident, and we're seeing more interest from all corners."

As the Services strive toward jointness—from how they develop equipment and systems to how they train and operate—each will preserve its unique character, Rajczak said.

"We don't want a vanilla military," he said. "Each Service has a very different culture and set of strengths. We want to blend those strengths and use them to our advantage, rather than having them duplicate each other's efforts."

### NAVY NEWSSTAND (MARCH 16, 2006) GW TESTS AIRSPEED PROGRAM

Journalist 1st Class Rebecca Perron, USN

**U**SS GEORGE WASHINGTON, At Sea—*USS George Washington* (CVN 73) sailors are putting the latest concepts of Aviation Maintenance and logistics into practice on a daily basis, through a chief of naval operations-mandated concept known as AIRSpeed.

GW was selected in November 2004 to become the lead platform for testing AIRSpeed on a sea-based platform, which includes research, testing, and implementation of the program.

AIRSpeed is a set of management tools used to analyze current processes in order to reduce cost and increase efficiency. To do this, sailors are trained to apply the AIRSpeed management tools to look for inefficiencies and reduce waste.

The ultimate goal is to understand business practices and the business of running the Navy and to decrease costs where possible.

"AIRSpeed actually started on the naval air side of the house in shore facilities," said Chief Aviation Electronics Technician (AW/SW) James Prince, AIRSpeed leading chief petty officer. "We look at the day-to-day process of how we actually accomplish our goals. This is the first time we are actually bringing it afloat."

According to GW's maintenance officer, Cmdr. Charlie Chan, GW was selected because of initiatives made by the ship.

"We were thinking way ahead of everybody else," Chan said. "We were sending our people through schools. Having an AIRSpeed team on board means your people have to be trained, and they have to understand it."

The implementation of AIRSpeed took almost four years throughout the shore-based Aviation Intermediate Maintenance Depot (AIMD) community. The time frame for sea-based implementation throughout the fleet is a little longer.

The areas being studied are ones that could reduce readiness, including avionics repair, power plants, engine overhaul, and GSE inventory.

"*George Washington* is tasked with a portion of the design," Prince explained. "We are going to start the design. After we complete our portion of it, we will do a handoff with another carrier."

And that carrier is *USS John C. Stennis* (CVN 74). After GW develops the initial blueprint for the program at sea, Stennis will implement the program and improve upon it before other carriers begin implementation.

Currently, GW is doing a series of value stream analyses to develop the design.

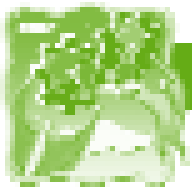
"GW is in the beginning stages of value stream analysis," said Lt. Jim Gault, Sea Control Squadron (VS)22 assistant maintenance officer, "where they are breaking down their processes, looking for waste areas, and identifying which processes add value and which don't."

Two major concepts within AIRSpeed are Lean and Six Sigma. Lean eliminates or reduces unnecessary processes, and Six Sigma aids in focused process analysis.

An example of how these concepts have worked ashore is an AIMD Mayport success story. According to Gault, this AIMD was able to reduce the usual 35 days it took to repair an engine to 14.

"The idea is to repair the right thing at the right time at the right cost," Gault added.

GW's success story so far is the calibration lab and the 15,000 pieces of equipment shipwide that must routinely be calibrated.



## In the News



An F/A-18 Hornet F404-GE-400 engine being tested by Aviation Intermediate Maintenance Department (AIMD) personnel aboard the Nimitz-class aircraft carrier *USS George Washington* (CVN 73).

U.S. Navy photograph.

“By ‘leaning’ it out, leaning the fat, identifying the constraints out there, we have improved our services—our turnaround time,” Chan explained. “We will make a lot of positive impact and reduce the number of petty officers from each department that have to tackle the calibration equipment.”

Aviation Electronics Technician 2nd Class (AW/SW) Christian Hansen, who has helped implement the AIRSpeed program ashore, is aboard *GW* as a technical assistant. He explained that one of the purposes of the program was getting everyone to work better as one team.

“The depot levels, the intermediate levels, the organizational levels, the supply side of the house,” Hansen said. “Get everybody to work as one team, just like a regular business would be. Incorporating AIRSpeed into the Navy, making it more like a business, saving money, time, and manhours.”

The bottom line, according to Hansen, is to utilize resources better, to get better organized, and to be more efficient.

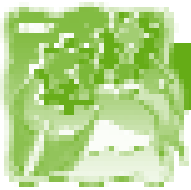
“We must prioritize what work needs to be done,” Chan said. “Cost-wise readiness is the key here, not readiness at any cost.”

The impact of the program on average sailors is to help them better understand what their job is and to help them do that job more efficiently.

“Most businesses do not understand all the steps in their processes, and this leads to waste that you are unaware of,” Prince added. “If you can identify all of the steps in your process, you can remove waste, which ultimately will give the sailor more time to do what he or she wants to do.”

*Perron serves with USS George Washington Public Affairs.*





### DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 16, 2006)

#### FISCAL YEAR 2006 ADVANCED CON- CEPT TECHNOLOGY DEMONSTRATIONS AND JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS ANNOUNCED

**U**nder Secretary of Defense for Acquisition, Technology and Logistics Kenneth J. Krieg has announced the selection of the Advanced Concept Technology Demonstration (ACTD) and Joint Capability Technology Demonstration (JCTD) projects for fiscal year 2006.

The military services, combatant commanders, defense agencies, and industry submitted more than 100 proposals. The science and technology community of the military services, combatant commanders, and defense agencies reviewed the list of proposals for technical soundness and the potential for operational utility. The Department of Defense then selected proposals for funding based on rankings by the combatant commanders and Services.

The ACTDs selected for initiation in fiscal year 2006 in alphabetical order are:

- **Event Management Framework (EMF).** Provides capability to discover and share information, recognize change, and develop and evaluate courses of action with apparently separate, but related events to develop preplanned courses of action and rapidly respond to crisis.
- **Extended Space Sensors Architecture (ESSA).** Addresses gaps in space situational awareness that increase risk for successful combatant command mission execution. Integrates technology from different mission areas (missile defense and space superiority) to give combatant commanders the situational awareness they need to act within their time requirements.
- **Joint Enable Theater Access (JETA).** Provides Lightweight Modular Causeway System that enables rapid discharge of combat power and sustainment material at austere sea ports of debarkation.
- **Multi-service Advanced Sensors to Counter Obscured Targets (MASCOT).** Permits warfighters to rapidly find, locate, identify, and report camouflage, concealment, and deception threats through network-centric-enabled collection, processing, and fusion of data from multiple sources.

- **Node Management And Deployable Depot (NO-MADD).** Implements a deployable end-to-end ("factory-to-foxhole") distribution system, including asset visibility using radio-frequency identification.
- **Small UAV.** Addresses Joint operational concerns through the integration of new technology across the entire class of small UAVs. Develops new tactics, techniques, and procedures across the military services for small unit real-time reconnaissance and surveillance capabilities.

The JCTDs selected for initiation in fiscal year 2006 in alphabetical order are:

- **Counter Intelligence-Human Intelligence Advanced Modernization Program/Intelligence Operations Now (CHAMPION).** Optimizes the reporting of critical intelligence-related data in a timely manner, while making data available for analysis by: standardizing data outputs, applying XML-tagging routines, providing geo-referencing and enabling Web services. Improves analysts' link to intelligence collection across the tactical level and to the national level.
- **Comprehensive Maritime Awareness.** Improves maritime security by acquiring, integrating, and exchanging relevant maritime activity information on regional threats and focuses limited interdiction and inspection assets on the most probable threats.
- **Joint Modular Intermodal Distribution System (JMIDS).** Provides a common intermodal container system with automated loading, handling, storage, tracking, and surveillance technology.
- **Large Data.** Demonstrates a highly scalable, rapid, and secure integrated capability to effectively retrieve, store, and share massive amounts of information effectively between global users. Provides very large data storage, communications, and security capabilities that are integrated and globally scaled.

The goal of ACTD and JCTD programs is to rapidly move advanced technology into the hands of warfighters in the field. The programs do this by marrying new operational concepts with maturing technologies in a joint environment. Consequently, ACTDs and the newer JCTDs reduce the time required to field new capabilities and increase warfighter involvement in developing solutions.



## In the News

This is the first year of the JCTD business model, which will eventually replace the ACTD model. Building on the successful ACTD model, JCTDs focus more on tailoring projects to a combatant commander's specifically identified needs, emphasizing "needs pull" over historical "technology push." This new program will enable faster project start-up; demand faster spiral fielding of interim capabilities; structure funding to provide incentives for military service participation without requiring the Services or agencies to fund from existing programs; and provide clear visibility of participation in joint efforts.

For more information on the ACTD and JCTD programs, go to the Web site: <http://www.acq.osd.mil/actd/>.

### AIR FORCE MATERIEL COMMAND NEWS SERVICE (MARCH 17, 2006) **JDAM CONTINUES TO BE WARFIGHTER'S WEAPON OF CHOICE**

*Staff Sgt. Ryan Hansen, USAF*

**E**GLIN AIR FORCE BASE, Fla.—To call yourself the airman warfighter's weapon of choice is one thing, but it's quite another to go out and back it up.

Since its debut in 1999, the Joint Direct Attack Munition, or JDAM, has been called upon more than 15,000 times and continues to be used in the global war on terror.

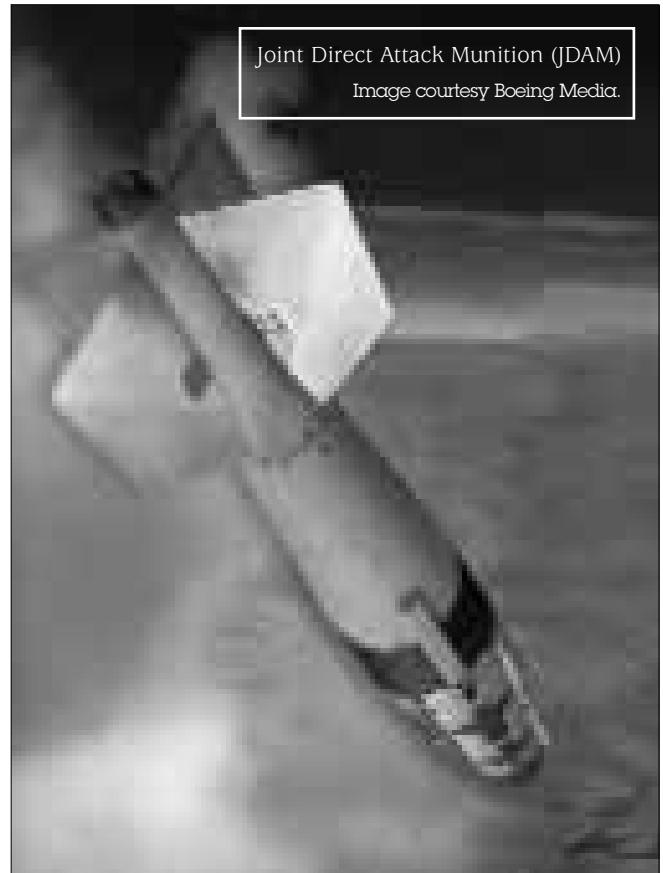
JDAM is a tail kit that turns an unguided dumb bomb already in the warfighter's arsenal into an accurate smart munition. These new smart weapons are available to the warfighter in four variants: the 2,000-pound MK-84, the 2,000-pound BLU-109, the 1,000-pound MK-83, and the 500-pound MK-82.

With a range of about 15 nautical miles, the autonomous JDAM can be released from almost every aircraft in the Air Force and Navy inventory from a very low or very high altitude in almost any type of weather. Once in the air, the weapon uses its inertial navigation and Global Positioning System to find its target.

But even though JDAM is now a staple of America's arsenal, the Direct Attack Systems Group at Eglin continues to upgrade the weapon and find new ways for the warfighter to use it to their advantage.

#### **New weapon needed**

In 1991 when Air Force leaders reviewed its performance following Operation Desert Storm, they saw an opera-



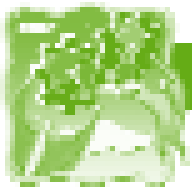
Joint Direct Attack Munition (JDAM)  
Image courtesy Boeing Media.

tional need for a precision-guided weapon that could be used in any weather.

The United States used mostly unguided munitions during the first conflict with Iraq. These weapons were not very accurate, which caused a variety of problems. The Air Force did use some laser-guided weapons, but they were only effective in near-perfect weather and were very expensive. So an alternative was needed.

Fortunately, some researchers and engineers at Eglin had already been looking at a new way to guide a bomb to its target since the 1980s. This group came up with the idea of using inertial navigation to make it work.

"We had done a (technology demonstration) and the (Air Force Research Laboratory Munitions Directorate) actually conducted the initial study," said Dr. Louis Cerrato, chief engineer of the JDAM Squadron, who was part of that original team. "But after the demo it languished for a couple of years and it was put on the shelf."



## In the News

After the Service's review of the conflict and its subsequent findings, the technology was ready to be taken off the shelf.

### Keep costs down

Many issues still had to be overcome even though the Air Force was ready to move forward with the project. The most important factor was affordability. The Service did not want to pay a lot for this new weapon technology. Luckily for the new program office, acquisition reform was taking place inside the Department of Defense. JDAM was picked by Congress to be one of seven pilot programs given waivers that allowed them to avoid some government regulations that were often very costly.

"Previously, companies dealing with the government were required to provide extensive cost data to justify prices," said Roy Handsel, a project manager with the JDAM Squadron. "This complicated and labor-intensive information gathering put many small manufacturing shops out of the running for government contracts. But with waivers ... small businesses across America could be subcontracted ... to produce the subassemblies that make up a JDAM."

In 1995 McDonnell Douglas, which later merged with Boeing, was picked to develop the low-cost JDAM. The Air Force and Navy were on board to purchase 87,000 tail kits at just \$18,000 apiece—which has since increased to more than 200,000 units because of the weapon's affordable price and operational success.

"JDAM has been one of the most successful acquisition reform programs," said Norma Taylor, program development flight director for the JDAM Squadron. "It has really been an example for other programs."

### Combat proven

The weapon was called upon for the first time in Operation Allied Force. B-2 Spirits flew 30-hour, nonstop, round trip missions from Whiteman Air Force Base, Mo., releasing more than 650 JDAMs during the conflict.

"Accuracy and reliability numbers on paper are one thing, but seeing results in combat is the real proof that our troops have seen and now they know they can count on JDAM," said Air Force Lt. Col. Richard Hyde, JDAM Squadron commander.

The weapon showed it could do even more for the warfighter with the start of Operation Enduring Freedom

in Afghanistan. B-52 Stratofortresses flying high above the battlefield and loaded to the hilt with JDAMs were regularly called in to provide close air support in addition to their regular missions.

"This type of performance has led to using JDAM in roles ... that we didn't envision," Hyde said. "It has really transformed our bomber fleet and the roles they can perform."

The same was true in Operation Iraqi Freedom. Warfighters knew they could rely on JDAMs and were able to use the 500-pound version of the weapon for the first time.

"Its smaller size really allows us to use the JDAM in more of an urban operation," Taylor said. "With the war being brought into the cities we really have to be not only precise, but also have very little collateral damage, and the 500-pounder really does that for us."

Its continued performance in the war on terrorism leaves no doubts about the JDAM's importance to the warfighter.

### Future upgrades

JDAM will be one of the first weapons in the inventory to be universal armament interface-compliant. This technology will allow the Air Force and Navy to incorporate new precision-guided munitions and current weapon upgrades onto its aircraft without major changes to aircraft software—a process that takes years and is very costly.

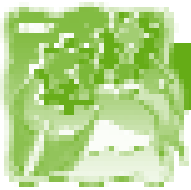
"Once we are implemented on a platform with UAI we'll be able to bring in new upgrades ... and integrate them significantly quicker than what we could before," Taylor said. "It used to take years, but now with UAI the process will be a lot quicker."

The jointly manned JDAM Squadron is also working with the Department of the Navy to add a laser seeker to the weapon. This will help the warfighter in two ways.

"If we do not have an exact GPS coordinate for a target, but we have the ability to put a laser spot on it, we'll still be able to drop JDAMs in that application," Taylor said. "Plus a laser JDAM will be very effective against moving targets."

Another way the JDAM Squadron is looking at making the weapon more useful against moving targets is by adding a data link. The Affordable Moving Surface Target Engagement effort is doing just that.





## In the News

"In the AMSTE scenario, once a JDAM is released, E-8C Joint Stars will be able to provide the weapon with continuous updates of a target's position to the weapon until impact," Hyde said. "This effort is being focused on maritime interdiction."

The weapon remains the warfighter's weapon of choice, but it's definitely not the same JDAM that rolled off the assembly line in the 1990s. They have significantly increased accuracy, satellite acquisition, anti-jamming, and electronic processing.

"This is not your father's JDAM," Hyde said. "We're more than just a production weapon; we're continuously on the leading edge of technology, and we're always looking toward the future."

*Hansen is with Air Armament Center Public Affairs.*

### AIR FORCE PRINT NEWS (MARCH 20, 2006) JOINT STRIKE FIGHTER PROGRAM CRUCIAL TO FUTURE AIR DOMINANCE

*Staff Sgt. C. Todd Lopez, USAF*

**W**ASHINGTON—Keeping the F-35 Joint Strike Fighter program on track is important because the Air Force needs to replace aging aircraft, and it is an important complement to the F-22A Raptor aircraft.

That Capitol Hill testimony came March 16 from Lt. Gen. Carrol H. "Howie" Chandler, deputy chief of staff for Air Force Air, Space, and Information Operations, Plans and Requirements.

"The Air Force has been very successful with what we call the high/low mix," the general said. "The F-15, for example, is high end. (It has) fewer numbers and is more expensive because of its capabilities. The F-16 is the low end of the mix—more affordable, more numbers, optimized for air-to-ground vice the air-to-air mission of the F-15."

The general told members of the House Armed Services Committee Subcommittee on Tactical Air and Land Forces that the Air Force meant for there to be a similar relationship between the F-22A and the F-35 aircraft, both "fifth generation" fighters.

"The two are very complementary to each other because of the optimization of the F-22A for air-to-air (combat),

and its ability to suppress or defeat enemy air defenses. The Joint Strike Fighter is optimized for air-to-surface and its ability to strike hard ... (with the) persistent numbers that we would like to buy of the aircraft," he said. "It is very important to us."

Chandler also said aging aircraft are a reason to push forward with the JSF program. The new aircraft will relieve the increasing cost of maintaining an older fleet, while at the same time bring new capabilities to the Air Force.

"As we attempt to maintain the aging fleet that we have today—as you know that becomes very expensive," he said. "We are able to sustain high mission-capable rates today because of the young men and women maintaining those aircraft. As the aircraft get older ... they are going to have to work harder to make those airplanes fly at the same rate."

As part of the fiscal 2007 president's budget, the Air Force recommends termination of the Joint Strike Fighter F-136 engine development program.

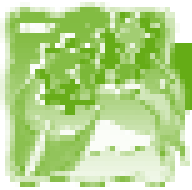
Chandler said the cancellation will provide cost savings through fiscal 2011. The program was meant to provide a mixed engine to the F-35 fleet, with F-136 engines from one manufacturer and F-135 engines from another.

In written testimony, the general said the Department of Defense concluded that a single engine supplier provides the best balance of risk and cost based upon recent experience with engine development for the F-22A and F/A-18 E/F. He said the current F-135 engine continues to meet JSF performance requirements, but conceded that in the past the Air Force has had success with maintaining two engines for one airframe.

"That success ... stems primarily from contractor performance—the contractor performed better under competition," he said. "And there were fleet operations issues, in that you were buying an insurance policy against a mass grounding of the fleet."

That "insurance policy" came at a cost, however. The general said the Air Force feels the costs are not worth the benefit to the Air Force to have a fleet of aircraft with different, competing engines.

"You pay for that insurance policy in terms of additional supply lines and additional training for your people," he said. "If you look at where we are today with the F-119



## In the News

F-35 Joint Strike Fighter  
Image courtesy Lockheed Martin.



engine (in the F-22A), and you look at the other competing issues that we have in the Department with trying to fund other programs, and you look at the reliability and the safety that we have developed with this program, you can make a prudent decision that says you can save the money that you would spend on the second engine.”

The F-136 is a General Electric engine developed in partnership with Rolls Royce. The Air Force wants to use the Pratt and Whitney F-135 engine for the F-35 aircraft. That engine is also developed in partnership with Rolls Royce. The F-22A aircraft is currently fitted with an F-119 engine, also developed by Pratt and Whitney.

Committee members were also concerned with encroachment issues. Encroachment is when communities surrounding a military installation build closer and closer to an airfield or training area, and civilian inter-

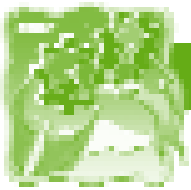
ests begin to compete with military training efforts. The general said the Air Force works with communities to prevent encroachment.

“Encroachment is always an issue ... we work very closely with the communities so we don’t endanger people as we try to train as realistically as we can,” he said.

### AMERICAN FORCES PRESS SERVICE (MARCH 21, 2006) **MISSILE DEFENSE TECHNOLOGY VALID, VIABLE, GENERAL SAYS**

*Steven Donald Smith*

**W**ASHINGTON—A robust, fully operational missile defense system is on its way to becoming a reality, the director of the Missile Defense Agency said here yesterday.



## In the News

"A lot of people wonder if this is going to work, and is it worth the investment," Air Force Lt. Gen. Henry A. (Trey) Obering III told an audience at the 4th Annual U.S. Missile Defense Conference. "The testing we've conducted ... shows the technology is valid and viable."

The goal of the Missile Defense Agency is to build an integrated, layered ballistic missile defense system that incorporates land-, sea-, and air-based defenses to protect the U.S. homeland, deployed troops, and America's friends and allies.

Obering pointed to Iran and North Korea as tangible threats to the United States and its allies, but stressed that aside from rogue states the United States must be prepared to deal with asymmetric threats from terrorist networks, emerging state powers, and a plethora of unknown scenarios. "We cannot predict what is going to happen," he said. "We didn't know 12 years ago we'd be fighting in Afghanistan. I don't know where we're going to be fighting 12 years from now."

Because enemies cannot defeat America and its allies on a traditional battlefield, they will look for other ways to inflict harm, such as a missile attack, he said. "There are ways that they (adversaries) can use missiles and

weapons of mass destruction married to those missiles to coerce and even blackmail the United States and our allies around the world," Obering said.

The general said dangerous threat scenarios are virtually endless. For instance, "Pakistan, one of our key allies today ... tomorrow could have a fundamentalist Islamic government controlling their nuclear-tipped missiles," he said. "Tomorrow we have to be prepared. That means we have to start preparing today."

Obering shared the stage with Deputy Defense Secretary Gordon England, who the general introduced as "a champion of missile defense."

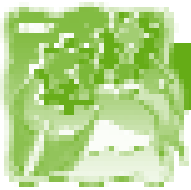
England said the new National Security Strategy, which was released last week, deals specifically with future unknown threats. "That strategy stressed a very important theme," England said. "And that theme is that we have never before faced greater uncertainty about future security conditions than we do today."

Since the security strategy identifies proliferation of nuclear weapons as a major threat to national security, ballistic missile defenses provide a critical layer of defense



Former First Lady Nancy Reagan views the bust (statue) of the 40th President just unveiled as Lt. Gen Henry Obering III, U.S. Air Force director for the Missile Defense Agency, and Riki Ellison (right), founder of the Missile Defense Advocacy Alliance, applaud the tribute during the Ronald W. Reagan Missile Defense Site Dedication Ceremony at Vandenberg Air Force Base, Calif., April 10, 2006. U.S. Air Force photograph by Tech. Sgt. Scott Seyer, USAF.





## In the News

for protecting the United States against weapons of mass destruction-armed missile attacks, he said.

Missile defense is a critical part of the U.S. security strategy, England said. "Both the new National Security Strategy and the 2006 Quadrennial Defense Review underscore the need for a strong missile defense capability," he said. "Missile defense is a central part of our broader national strategy, a strategy that can only be realized over time and with a great deal of hard work."

The deputy secretary also emphasized the importance of promoting international cooperation in regard to missile defense. "Another area where MDA is leading the way is in its international partnerships," he said. "Implementing and evolving the nation's strategic defense depends on a unity in effort—bringing to bear all the elements of national power and working in closest partnership with our friends and our allies abroad. No single nation can stand up to today's danger and win alone." Japan, Australia, Israel, Germany, Italy, and the United Kingdom, as well as other U.S. allies, are actively cooperating in missile defense with the United States. Japan is by far the biggest partner, contributing about \$1 billion annually to research and development.

Speaking later in the day was Marine Gen. James E. Cartwright, chief of U.S. Strategic Command, who said that the United States needs a good defense as much as it needs a good offense. "I certainly would not want to put a Marine on the streets of Mogadishu [Somalia] or on the streets of Baghdad without body armor," Cartwright said. "An M16 is not enough."

Cartwright also pointed out that America's nuclear arsenal is not a deterrent against Islamic extremism. "A nuclear weapon is not a deterrent against an extremist. We've got to have a defense that underpins that offense," he said. "Without flexibility to combine offense and defense we are limiting ourselves."

### DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 7, 2006) **DOD RELEASES SELECTED ACQUISITION REPORTS**

**T**he Department of Defense has released details on major defense acquisition program cost, schedule, and performance changes since the September 2005 reporting period. This information is based on the Selected Acquisition Reports (SARs) submitted to the Congress for the December 2005 reporting period.

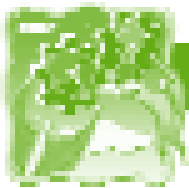
SARs summarize the latest estimates of cost, schedule, and technical status. These reports are prepared annually in conjunction with the president's budget. Subsequent quarterly exception reports are required only for those programs experiencing unit cost increases of at least 15 percent or schedule delays of at least six months. Quarterly SARs are also submitted for initial reports, final reports, and for programs that are rebaselined at major milestone decisions.

The total program cost estimates provided in the SARs include research and development, procurement, military construction, and acquisition-related operation and maintenance (except for pre-Milestone B programs, which are limited to development costs pursuant to 10 U.S.C. §2432). Total program costs reflect actual costs to date as well as future anticipated costs. All estimates include anticipated inflation allowances.

The following current estimate of program acquisition costs for programs covered by SARs for the prior reporting period (September 2005) was \$1,539,048.8 million. After adding the costs for two new programs—ARH (Armed Reconnaissance Helicopter) and JLENS (Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System)—and subtracting the costs for final reports on a completed program (LHD 1 Amphibious Assault Ship), a restructured program (TSAT (Transformational Satellite Communications System)), the completed Fire Unit portion of Patriot PAC-3 (Patriot Advanced Capability), and the completed MK 1 portion of SSDS (Ship Self Defense System) from the September 2005 reporting period, the adjusted current estimate of program acquisition costs was \$1,517,182.4 million.

For the December 2005 reporting period, there was a net cost increase of \$39,723.0 million billion or + 2.6 % for programs that have reported previously, resulting in a new current estimate of \$1,584,718.7 million. The net cost increase was due primarily to the application of higher escalation rates (+ \$21,194.6 million), an increase in support requirements (+ \$7,521.9 million), a net stretch-out of development and procurement schedules (+ \$5,627.0 million), higher program cost estimates (+ \$2,589.5 million), additional engineering changes (hardware/software) (+ \$2,325.6 million), and a net increase of planned quantities to be purchased (+ \$446.6 billion). Details of the most significant changes follow, summarized by program.

The National Defense Authorization Act (NDAA) for FY 2006 made changes to the Nunn-McCurdy unit cost re-



## In the News

### CURRENT ESTIMATE (\$ IN MILLIONS)

**September 2005 (85 programs) . . . . . \$1,539,048.8**

Plus two new programs  
(ARH and JLENS) . . . . . +10,719.7  
Less final reports on a completed  
program (LHD 1), a restructured  
program (TSAT), the completed  
Fire Unit portion of Patriot PAC-3,  
and the completed MK 1 portion  
of SSDS . . . . . -32,586.1

**September 2005 Adjusted  
(85 programs) . . . . . \$1,517,182.4**

#### Changes Since Last Report:

Economic . . . . . \$ +21,194.6  
Quantity . . . . . +446.6  
Schedule . . . . . +5,627.0  
Engineering . . . . . +2,325.6  
Estimating . . . . . +2,589.5  
Other . . . . . +17.8  
Support . . . . . +7,521.9  
Net Cost Change . . . . . \$ +39,723.0

Plus initial procurement cost estimates  
for DD(X) Destroyer (previous reports  
limited to development costs per 10  
USC §2432) . . . . . +27,813.3

**December 2005 (85 programs) . . . . . \$1,584,718.7**

porting statute for DoD major defense acquisition programs (10 USC §2433). The primary change was the addition of 30percent and 50percent unit cost thresholds against the original baseline estimate approved at System Development and Demonstration (Milestone B). The existing 15percent and 25 percent unit cost thresholds were retained against the current baseline estimate. For the December 2005 reporting period:

DoD has one program with a Nunn-McCurdy unit cost breach of more than 15 percent but less than 25 percent to the current baseline estimate. Notification and unit cost breach information will be provided to the Congress for this program.

- GMLRS (Guided Multiple Launch Rocket System)

DoD has three programs with Nunn-McCurdy unit cost breaches of more than 25 percent to the current baseline estimate. Notification and unit cost breach information will be provided to the Congress for these programs, and the USD(AT&L) will

consider whether to certify that the programs should continue.

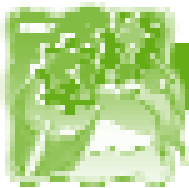
- ASDS (Advanced SEAL Delivery System) (no certification—program cancelled)
- Global Hawk
- NPOESS (National Polar-Orbiting Operational Environmental Satellite System).

DoD has 11 programs with Nunn-McCurdy unit cost breaches of more than 30 percent but less than 50 percent to their original baseline estimate. Notification and unit cost breach information will be provided to the Congress for these programs.

- ATIRCM/CMWS (Advanced Threat Infrared Countermeasure/Common Missile Warning System)
- C-130 AMP (Avionics Modernization Program)
- Chem Demil (Chemical Demilitarization) CMA (Chemical Materials Agency)
- Chem Demil CMA Newport
- EFV (Expeditionary Fighting Vehicle)
- F/A-18
- JASSM (Joint Air-to-Surface Standoff Missile)
- JPATS (Joint Primary Aircraft Training System)
- JSF (Joint Strike Fighter)
- MH-60S
- SSN 774 (Virginia Class)

DoD has 25 programs with Nunn-McCurdy unit cost increases of more than 50 percent to their original baseline estimate. However, these increases are not Nunn-McCurdy breaches since NDAA permits the original baseline estimate to be revised to the current baseline estimate as of Jan. 6, 2006.

- AEHF (Advanced Extremely High Frequency)
- AMRAAM (Advanced Medium Range Air to Air Missile)
- ASDS (Advanced SEAL Delivery System)
- Black Hawk Upgrade
- Bradley Upgrade
- C-17A
- CH-47F
- EELV (Evolved Expendable Launch Vehicle)
- F-22A
- FCS (Future Combat Systems)
- FMTV (Family of Medium Tactical Vehicles)
- Global Hawk
- GMLRS (Guided Multiple Launch Rocket System)
- Javelin
- JSOW (Joint Standoff Weapon)
- H-1 Upgrades
- Longbow Apache



## In the News

- LPD 17
- MH-60R
- Minuteman III GRP (Guidance Replacement Program)
- NPOESS (National Polar-Orbiting Operational Environmental Satellite System)
- SBIRS (Spaced Based Infrared Radar System) High
- T-45TS
- Trident II Missile
- V-22

### New SARs (As of December 31, 2005)

The Department of Defense has submitted initial SARs for ADS (Advanced Deployable System), HLR (Heavy Lift Replacement), LHA Replacement Amphibious Assault Ship, and VH-71 Presidential Helicopter Replacement. These reports do not represent cost growth. Baselines established on these programs will be the point from which future changes will be measured. The current cost estimates are shown in the sidebar.

### Summary Explanations of Significant SAR Cost Changes (As of December 31, 2005)

**ACS (Aerial Common Sensor)**—Program costs decreased \$3,397.2 million (-73.5 percent) from \$4,625.1 million to \$1,227.9 million, due to the contractor's failure to produce a viable alternative solution to the size, weight, power, cooling, and aircraft integration issues and the subsequent termination of the System Development and Demonstration (SDD) contract.

**ATIRCM/CMWS (Advanced Threat Infrared Countermeasure/Common Missile Warning System)**—Program costs increased \$885.5 million (+ 18.8 percent) from \$4,708.9 million to \$5,594.4 million, due primarily to quantity increases of 921 A-Kits from 2,650 to 3,571 (+ \$431.9 million) and 634 Mission Kits from 1,076 to 1,710 (+ \$1,368.9 million), engineering changes due to implementing ATIRCM corrective actions (+ \$44.0 million), cost savings from the introduction of the multi-band laser into ATIRCM (-\$741.8 million), and the application of revised escalation rates (+ \$59.6 million). These net increases were partially offset by support savings resulting from a reduction in the number of spares and storage containers (-\$127.6 million) and cost savings resulting from decreases in the initial production facilities, depot standup, production base support, and contractor system engineering program management estimates (-\$213.4 million).

**Black Hawk Upgrade**—Program costs increased \$2,922.5 million (+ 14.0 percent) from \$20,847.1 million to \$23,769.6 million, due primarily to the incorporation of improvements and increased capabilities (+ \$1,112.1 million), increased costs due to a stretch-out of the annual procurement buy profile (+ \$815.3 million), higher cost estimates (+ \$604.7 million), and the application of revised escalation rates (+ \$209.3 million). Program costs also increased due to an increase in spares to support aircraft upgrades (+ \$152.1 million) and an increase in post production software to support additional software for the upgrades (+ \$112.2 million). These increases were partially offset by a decrease in baseline hardware items replaced by upgrades (-\$221.5 million).

**Bradley Upgrade**—Program costs increased \$6,296.6 million (+ 233.9 percent) from \$2,691.9 million to \$8,988.5 million, due primarily to an increase in the quantity of upgrade vehicles of 1,568 vehicles from 595 to 2,163 (+ \$5,467.1 million) and increases in initial spares, peculiar support, training devices, and new equipment training related to the increased quantity (+ \$601.0 million).

**FBCB2 (Force XXI Battle Command Brigade and Below)**—Program costs increased \$644.9 million (+ 35.8 percent), from \$1,801.9 million to \$2,446.8 million, due to a quantity increase of 16,278 units from 27,828 to 44,106 required by the Army to support the continuing deployments to Iraq and Afghanistan (+ \$406.2 million) and revised program office estimates (+ \$237.8 million).

**FCS (Future Combat Systems)**—Program costs increased \$3,208.3 million (+ 2.0 percent) from \$161,420.0 million to \$164,628.3 million, due primarily to the application of revised escalation rates.

### CURRENT ESTIMATE (\$ IN MILLIONS)

#### Program

ADS (Advanced Deployable System) . . . . .	\$ 1,412.6
HLR (Heavy Lift Replacement) . . . . .	18,876.0
LHA Replacement Amphibious Assault Ship . . . . .	3,093.5
VH-71 Presidential Helicopter Replacement . . . . .	6,547.3

**Total . . . . .** \$29,929.4



## In the News

**GMLRS (Guided Multiple Launch Rocket System)**—Program costs increased \$2,364.2 million (+17.3 percent) from \$13,670.5 million to \$16,034.7 million, due primarily to a stretch-out in the annual procurement buy profile (+\$952.4 million) and an increase in the program cost estimate (+\$332.5 million) because of near-term funding reductions for higher priority programs. There were additional increases to reflect revised cost estimates for the Insensitive Munitions Rocket Motor (+\$452.2 million), the Unitary Warhead (+\$171.4 million), the Unitary Electronic Safe and Arm Fuze (+\$61.2 million), and unique GMLRS Rocket Pod items (+\$62.2 million). Finally, the application of revised escalation rates also contributed to the increased costs (+\$265.3 million).

**HIMARS (High Mobility Artillery Rocket System)**—Program costs decreased \$1,334.9 million (-28.6 percent) from \$4,673.0 million to \$3,338.1 million, due primarily to a quantity reduction of 303 launchers from 888 to 585 (-\$1,408.2 million) and associated schedule and estimating allocations\* (-\$40.7 million), as well as reduced initial spares and peculiar support related to the decrease in quantity (-\$193.6 million). These decreases were partially offset by revised estimates for other weapon system costs (+\$75.7 million) and the application of revised escalation rates (+\$69.0 million).

**Land Warrior**—Program costs decreased \$8,880.3 million (-68.7 percent) from \$12,934.5 million to \$4,054.2 million, due primarily to a quantity decrease of 60,189 systems from 84,970 to 24,781 (-\$3,228.1 million) and associated schedule and estimating allocations\* (+\$1,162.9 million), as well as reduced initial spares, peculiar support, training, and data related to the decrease in quantity (-\$689.3 million). In addition, there was a downward revision in the cost estimate to reflect the Army's updated requirements for the Land Warrior Ensemble and the Ground Soldier System (GSS) (-\$6,687.9 million). These decreases were partially offset by the application of revised escalation rates (+\$511.4 million).

**Stryker**—Program costs increased \$955.3 million (+9.2 percent) from \$10,405.5 million to \$11,360.8 million, due primarily to a quantity increase of 181 vehicles from 2,439 to 2,620 (+\$531.4 million), an increase in initial spares and fielding support associated with the quantity increase (+\$193.2 million), the application of revised escalation rates (+\$107.3 million), engineering changes (+\$73.2 million), and revised estimates (+\$68.2 million).

**WIN-T (Warfighter Information Network-Tactical)**—Program costs increased \$1,273.8 million (+9.9 percent), from \$12,896.7 million to \$14,170.5 million. This increase is due primarily to the Army's decision to delay the program development schedule (+\$726.3 million), along with an increase in procurement requirements (+\$248.6 million) and support for the Army's current modular force structure (+\$609.3 million), and the application of revised escalation rates (+\$256.3 million). These program cost increases were partially offset by estimating refinements that resulted in a decrease in program costs (-\$566.7 million).

### NAVY

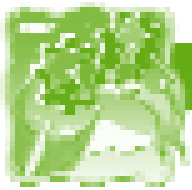
**AIM-9X**—Program costs increased \$317.1 million (+10.4 percent) from \$3,038.5 million to \$3,355.6 million, due primarily to revised production cost estimates for the Active Optical Target Director (+\$246.5 million), a schedule change due to a shift of 596 missiles beyond the Future Years Defense Program (FYDP) (+\$58.6 million), and the application of revised escalation rates (+\$47.5 million).

**ASDS (Advance SEAL Delivery Systems)**—Program costs decreased \$463.3 million (-38.6 percent) from \$1,201.0 million to \$737.7 million, due primarily to the cancellation of the ASDS acquisition program (-\$495.5 million). This cost decrease was offset by addition of funding for the ASDS-1 Improvement Plan (+\$69.4 million).

**LCS (Littoral Combat Ship)**—Program costs increased \$388.2 million from \$1,313.7 million to \$1,701.9 million (+29.6 percent), due primarily to sea frame pricing increases (+\$97.4 million), and increased costs associated with the postponement of Flight I (+\$287.7 million).

**SSN 774 Virginia Class**—Program costs increased \$1,841.9 million from \$93,979.8 million to \$95,821.7 million, due primarily to a congressional increase for Virginia Class cost reduction initiatives (+\$154.0 million), revised escalation indices (+\$2,422.0 million), the stretch-out of the procurement schedule to FY20 (+\$2,149.3 million), and increases in labor hours and rates (+\$709.0 million). These increases were partially offset by savings in inflation that resulted from closing the gap between OMB/OSD and Virginia class pricing (-\$2,438.3 million), updated material estimates (-\$469.9 million), and overhead rates (-\$359.7 million). An additional reduction was gained by switching from the Navy Working Capital Fund to mission funding at the Naval Foundry (-\$344.6 million).





## In the News

**Trident II Missile**—Program costs increased +\$1,020.1 million (+2.8 percent) from \$36,981.8 million to \$38,001.9 million, due primarily to new engineering effort associated with adapting the Trident II (D-5) missile to carry conventional payloads (+\$466.4 million), revised estimates for D-5 life extension hardware (+\$221.6 million), and age-driven supportability modifications of flight hardware (+\$42.8 million). There were additional increases for the application of revised inflation indices (+\$209.2 million) and higher estimates for D-5 life extension support (+\$104.0 million).

### AIR FORCE

**C-130 AMP (Avionics Modernization Program)**—Program costs increased \$483.9 million (+10.9 percent) from \$4,449.3 million to \$4,933.2 million, due primarily to a stretch-out of the annual procurement buy profile (+\$143.8 million), refined estimates due to a change in program assumptions (+\$363.1 million), increases in initial spares requirements due to additional out-year requirements (+\$61.7 million), and the application of revised escalation rates (+\$69.8 million). These increases were partially offset by a quantity reduction of 31 kits from 454 to 423 (-\$91.3 million) and associated schedule and estimating allocations\* (-\$121.7 million).

**C-130J**—Program costs increased \$1,389.1 million (+22.3 percent) from \$6,223.2 million to \$7,612.3 million, due primarily to a quantity increase of 26 aircraft from 53 to 79 (+\$1,784.9 million) and associated schedule allocation\* (-\$245.9 million), increases in initial spares, peculiar support, and required training costs related to the quantity increase (+\$447.2 million), and the application of revised escalation rates (+\$44.0 million). The increases were partially offset by the elimination of previously included program termination costs (-\$650.4 million).

**F/A-22**—Program costs increased \$1,276.3 million (+2.1 percent) from \$61,323.7 million to \$62,600.0 million, due primarily to a quantity increase of 4 aircraft from 172 to 176 (+\$506.6 million), stretch-out of the annual procurement buy profile to FY 2012 (+\$226.1 million), and increases in initial spares (+\$447.6 million) and other weapon system support costs (i.e., trainers) (+\$94.5 million).

**Global Hawk**—Program costs increased \$1,249.7 million (+19.0 percent) from \$6,566.0 million to \$7,815.7 million, due primarily to cost growth in sustaining labor, accounting changes, and correction of RQ-4B design deficiencies, as well as changes in estimating methodology

(+\$710.2 million). Program costs also increased due to a System Development and Demonstration (SDD) schedule extension (+\$147.0 million), incorporation of improvements and increased capabilities (+\$148.2 million), inclusion of certain sensor retrofit efforts (\$142.8 million), a quantity increase of 3 air vehicles from 51 to 54 and 3 additional sensors (+\$163.6 million), an increase in spares requirements (+\$95.7 million), and revised escalation indices (+\$74.5 million). These increases were partially offset by a realignment of the buy quantity that eliminated the need for Lot 11 (-\$94.6 million) and deletion of certain requirements such as defensive systems and bit fault isolation (-\$144.8 million).

**NPOESS (National Polar-Orbiting Operational Environmental Satellite System)**—Program costs increased \$5,525.0M (+66.7 percent) due primarily to technical challenges on the Visible Infrared Imager Radiometer Suite, Conical Scanning Microwave Imager Sounder, Ozone mapping Profiler Suite sensors, and spacecraft design development efforts (+1,626.6 million). There were additional increases for production cost growth for the above subsystems (+\$3,374.0 million) and revised development and production schedule estimates for the above subsystems (+\$455.6 million).

**SDB (Small Diameter Bomb)**—Program costs decreased \$229.1 million (-12.7 percent) from \$1,809.2 million to \$1,580.1 million, due primarily to a reduction in total funding years from 20 to 16 years with a corresponding accelerated annual buy (-\$258.6 million). These decreases were partially offset by the application of revised escalation rates (+\$27.3 million) and the realignment of SDB Increment II funds (+\$21.7 million).

### DOD

**BMDS (Ballistic Missile Defense System)**—Program costs decreased \$1,212.7 million (-1.4 percent) from \$87,123.4 million to \$85,910.7 million, due primarily to a restructure of the program as a result of a two-year delay of the first flight of the Airborne Laser (ABL) 2nd aircraft to follow the lethal shoot down scheduled for 2008, delay of the Space-Based Test Bed, delay of Space Tracking and Surveillance System (STSS) until Block 2012, and delay to the European long-range Midcourse Interceptor Site six months to 2011 (-\$1,291.0 million). The restructure resulted in a revised program estimate that eliminated previously planned program assumptions and several planned engineering enhancements (-\$409.6 million). The restructure also resulted in revised estimates for program overhead and infrastructure (-\$150.0 million). In addition, there were other reductions and gen-



## In the News

eral mandatory distributions (-\$243.0 million). These decreases were partially offset by the application of revised escalation indices (+ \$960.8 million).

**Joint Strike Fighter (F-35)**—Program costs increased \$19,841.3 million (+ 7.7 percent) from \$256,617.6 million to \$276,458.9 million, due primarily to the increased cost of materials for the airframe (+ \$10,252.9 million), revised inflation impact assumptions and methodology (+ \$9,872.9 million), revised assumptions regarding the work share between the prime contractor and subcontractors (+ \$5,519.6 million), the application of revised escalation rates (+ \$5,442.7 million), impact of configuration update and methodology changes on support (+ \$4,400.6 million), a change in the subcontracting manufacture plan for the wing (+ \$3,548.9 million), and a realignment of funding to outyears due to Congressional and Service FYDP reductions (+ \$130.0 million). These increases were partially offset by the benefits of additional procurement by partner countries (-\$9,243.8 million), a learning curve adjustment to reflect single engine source (-\$5,112.5 million), design maturation (-\$3,017.3 million), and the cancellation of the F136 engine (-\$1,951.0 million).

**JTRS GMR (Joint Tactical Radio System Ground Mobile Radio (formerly Cluster 1))**—Program costs decreased \$1,179.6 million (-5.5 percent), from \$21,632.3 million to \$20,452.7 million, due primarily to a restructure of the program that resulted from technical problems and the removal of Army, Air Force, and Marine Corps radios from the program. Specifically, the reductions resulted in a quantity decrease of 5,385 radios from 109,670 to 104,285 (-\$890.7 million) and associated schedule, engineering, and estimating allocations\* (-\$161.1 million), a revised estimate resulting from the program restructure (-\$1,294.4 million), and a decrease in support requirements related to the quantity reduction (-\$341.3 million). These decreases were partially offset by the stretch-out of the annual procurement buy profile (+ \$625.4 million) and the application of revised escalation rates (+ \$540.6 million), and revised development estimates (\$ + 454.7 million).

**JTRS (Joint Tactical Radio System) Waveform**—Program costs increased \$465.1 million (+ 35.2 percent), from \$1,321.5 million to \$1,786.6 million, due primarily to increased funding provided by both the Air Force and Navy for development of additional required waveforms (+ \$421.8 million).

\* Note: Quantity changes are estimated based on the original SAR baseline cost-quantity relationship. Cost changes since the original baseline are separately categorized as schedule, engineering, or estimating "allocations." The total impact of a quantity change is the identified "quantity" change plus all associated "allocations."

## NEW GUIDED MLRS UNITARY ROCKET IS IMMEDIATE SUCCESS IN IRAQ

*Lt. Col. Mark Pincoski, USA*

**I**n September 2005, Bravo Battery, 3rd Battalion, 13th Field Artillery Regiment conducted the first-ever combat fire mission using Guided Multiple Launch Rocket System—Unitary (GMLRS-U) rockets against enemy positions in Tal Afar, Iraq. Eight rockets were fired at a distance of greater than 50 kilometers, destroying two insurgent strongholds and killing 48 enemy insurgents. Damage to adjacent structures was minimal. Three more missions have been conducted since that time, all with equal success.

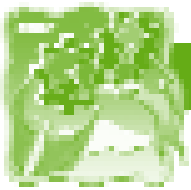
The effectiveness of the new munition was welcomed by commanders fighting in an environment where enemy forces attempt to conceal themselves in areas populated by noncombatants. Following the mission, Army Col. H.R. McMaster, commander, 3rd Armored Cavalry Regiment, made the statement, "The GMLRS proved itself in combat in Tal Afar and provided the regiment with tremendous capability. It not only was able to hit enemy positions with a great deal of precision, but was able to limit collateral damage."

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GMLRS-U is a solid-propellant artillery rocket deployed from the M270A1 and the High Mobility Artillery Rocket System mobile launch vehicles. GMLRS-U is equipped with a 200-pound unitary high-explosive warhead, has a range of over 70 kilometers, and is effective against multiple targets including reinforced concrete. The addition of an inertial guidance system coupled with a Global Positioning Satellite system has improved the accuracy of the rocket to significantly less than 5 meters.

In 2004, ground forces in Iraq saw the need for a highly accurate indirect weapon system that could be used in urban terrain while limiting the collateral damage to surrounding structures. Multinational Corps-Iraq submitted an Urgent Need Statement to the Department of the Army requesting the delivery of GMLRS-U for use in future operations. The Army validated the request in January 2005, and the first deliveries of GMLRS-U began in May 2005. A fielding team was dispatched to Iraq in June 2005 to train deployed units; test firings were conducted in theater later that month. By September, GMLRS-U was being used in support of ground forces during combat operations in Iraq.

The benefit of GMLRS-U to our forces is readily apparent, and operational commanders have requested additional quantities of the rocket to be procured and deployed to Iraq and other operational theaters. The unmitigated success of GMLRS-U in Iraq resulted in the deployment of additional GMLRS units in March of 2006 to other CENTCOM areas of responsibility. It has become the weapon of choice for commanders requiring indirect support while operating in urban and restrictive terrain.

The GMLRS Unitary Rocket is managed by the Precision Fires Rocket and Missile Systems Project Management Office, Redstone Arsenal, Ala., and produced by Lockheed Martin at Camden, Ark.

*Pincoski is currently serving as the product manager for Precision Guided Munitions and Rockets at Redstone Arsenal, Ala.*



U.S. Army soldiers fire a rocket from inside a Multiple Launch Rocket System during a tactical mission at Forward Operations Base Q-West, Qayyarah, Iraq, Jan. 5, 2006. The system belongs to 2nd Battalion, 20th Field Artillery, 4th Fires Brigade. DoD photograph by Staff Sgt. James H. Christopher III, USA.



## Spotlight on DAU Learning Resources

### PEO STRI, DAU BRING TRAINING HOME TO TEAM ORLANDO

Heather Kelly

**T**he Program Executive Office for Simulation, Training, and Instrumentation (PEO STRI) graduated the first-ever on-site Defense Acquisition University (DAU) program management office course, PMT 352B, March 3, 2006.

Senior acquisition professionals from the Army, Navy, Marine Corps, and defense industry convened daily during the six-week course, which featured scenario-based practical exercises with topical themes such as interoperability, prototyping, and evolutionary acquisition.

The course is the second part of the Defense Acquisition Workforce Improvement Act Level III certification in the program management (PM) career field. DAU currently offers the course year-round at regional campuses across the country, but this year was the first time it was offered in Orlando, Fla.

“DAU’s ongoing transformation efforts have had a significant impact on the way we do business,” said John T. Shannon, dean of the Capital and Northeast Region DAU campus, who offered graduation remarks at the ceremony. “Our first initiative was moving the faculty to where the force is to be available and close to the acquisition community,” said Shannon referring to the DAU regional campuses located across the United States.

“Offering flexible training options has enabled us to make tremendous strides in better equipping our acquisition workforce for the challenges they will encounter in today’s environment,” Shannon said.

Traci A. Jones, project support executive for PEO STRI, agreed. “The program management office course is particularly important to PEO STRI because our mission is to provide life cycle management of interoperable training, testing, and simulation solutions for the warfighter,” she said. “By bringing the course to Team Orlando, we were able to save the government thousands of dollars in travel expenses as well as increasing our DAWIA certification level to 77 percent, one of the highest in the Army. It’s a win-win situation for us all and a model for other organizations.”

Although the course was held on home turf, students participating were highly discouraged from tackling their normal work duties while enrolled in the class.

“For six weeks this is your full-time job,” students were advised before beginning the course. The prospect of future sessions offered in Orlando depended on the success of the initial session, whose 30 members earned a solid 100 percent certification rate. The achievement spoke to PEO STRI and DAU’s commitment to workforce development.

“PEO STRI’s training program supports our mission through a number of on-site courses in career management, communications, presentation skills, time management, leadership, and technical courses,” said Jones. “The entire application process is electronic and can be accessed anytime, anywhere.”

PEO STRI is scheduled to host the next Team Orlando PMT 352B course in October 2006.

*Kelly is public affairs officer, Program Executive Office for Simulation, Training, and Instrumentation, Orlando, Fla.*

### DAU MIDWEST REGION SIGNS LEARNING ORGANIZATION AGREEMENTS LAWRENCE TECHNOLOGICAL UNIVERSITY AND DEPARTMENT OF ENERGY

Carl D. Hayden

**O**n March 9, 2006, DAU signed a strategic partnership agreement with **Lawrence Technical University** in a ceremony held on the campus of LTU, Southfield, Mich. Travis Stewart, dean, DAU Midwest Region, and Dr. Lewis N. Walker, president, Lawrence Technological University, signed for their respective organizations.

The partnership was created and designed for the purpose of increasing the quantity and quality of educational opportunities that will allow the acquisition, technology, and logistics workforce of the Department of Defense and other federal agencies to fulfill their training and education requirements. Under the terms of the agreement, LTU and DAU will form an alliance whereby LTU will offer both certificate and graduate-level coursework to qualified applicants at the U.S. Army Tank-automotive and Armaments Command–Life Cycle Management Command (TACOM-LCMC) in Detroit, Mich.





## Spotlight on DAU Learning Resources

Lawrence Technological University, founded in 1932 as Lawrence Institute of Technology, is a private institution with a coeducational student body numbering approximately 5,000. One of LTU's benefits is a discount on tuition rate for students admitted to LTU under this strategic partnership agreement.

The strategic partnership agreement will provide a graduate-level certificate program that awards academic credit for qualified students and meets both the education and training requirements for Levels I, II, and III in contracting, logistics and technology, information technology, property management, manufacturing production, quality assurance, systems engineering, and program management. Some additional opportunities between the educational partners include graduate-level certificate programs in the following areas: project management, non-profit management, Six Sigma and Lean manufacturing, and leading organizational change. LTU is also prepared to offer the TACOM-LCMC community graduate-level coursework for other careers and to conduct a complimentary needs assessment to determine graduate-level coursework for job families and career paths at TACOM.

LTU will also provide on-site and online graduate-level courses to qualified degree-seeking applicants to meet their education requirements for careers in program and project management, information technology, manufacturing production, and quality assurance. LTU will provide on-site and online degree programs to qualified applicants: master of science in information systems; master of business administration (MBA); master of science in operations management; master of science in engineering management; and dual degree in engineering management and MBA. LTU will provide for the transfer of appropriate graduate-level DAU coursework that is American Council on Education (ACE)-evaluated. Especially noteworthy is that LTU may consider other DAU coursework taken by applicants as suitable for transfer credit.

### Department of Energy

On March 28, 2006, DAU signed a Learning Organization Agreement with the Department of Energy, Environmental Management Consolidated Business Center (EMCBC) in Cincinnati, Ohio. Stewart signed on behalf of DAU, and Jack Craig (SES), director, DoE Consolidated Business Center, on behalf of the DoE.

The CBC has consolidated the field functions of DoE's environmental management closure sites and other sites

in the areas of human resources, financial management, contracting/procurement, information management, logistics, safety, and legal services. The supported sites include the Ohio Field Office (Columbus, Ashtabula, West Valley, Fernald, and Miamisburg), Rocky Flats, Carlsbad, the Portsmouth/Paducah Project Office, and the Western Sites Project Office. The Department of Energy has numerous satellite offices throughout the DAU Midwest Region.

The CBC is staffed with a cadre of skilled employees who possess expertise in site closure requirements. The EMCBC provides the DoE's Office of Environmental Management and its project sites with a full range of business support services (as listed above) and provides customer sites with technical assistance. This DAU/EMCBC Learning Organization Agreement will enable approximately 14,000 federal employees in Cincinnati and in Kentucky and Indiana to learn more about DAU's vision, mission, and learning assets. A DAU Acquisition Insight Day is scheduled for the area later this year.

*Hayden is associate dean of academics, DAU Midwest Region.*

### ACQUISITION COMMUNITY CONNECTIONS ADDS TWO NEW SPECIAL INTEREST AREAS

The Acquisition Community Connection Web site now hosts a new Special Interest Area that supports the unique roles of operations researchers and systems analysts. These OR/SA professionals employ analytic tools and methodologies to provide valuable, objective information to decision makers. Review this newest addition to DAU's knowledge management inventory at [https://acc.dau.mil/simplify/ev.php?ID=94677\\_201&ID2=DO\\_TOPIC](https://acc.dau.mil/simplify/ev.php?ID=94677_201&ID2=DO_TOPIC).

Another new Special Interest Area—Test Resources Management Center-Test & Evaluation/Science & Technology—at [https://acc.dau.mil/simplify/ev\\_en.php?ID=15924\\_201&ID2=DO\\_TOPIC](https://acc.dau.mil/simplify/ev_en.php?ID=15924_201&ID2=DO_TOPIC) is now open to the public as well as Acquisition Community Connection members. This area develops and demonstrates high-payoff science and technology for test and evaluation of emerging and future weapon systems.

### DAU ADDS CONTINUOUS LEARNING MODULES

The following six new continuous learning modules have been added to the list of 139 DAU Continuous Learning Modules, and are now available



## Spotlight on DAU Learning Resources

for browsing or enrollment at <https://learn.dau.mil/html/clc/Clc.jsp?cl=>>.

### **CLC 106, Contracting Officer Representative (COR) Training**

The Contracting Officer Representative module provides contracting officer representatives with basic knowledge needed for their assignments. It will provide an overview of the acquisition process, teaming, ethics and integrity, authorities, contract classification, contract types, proper file documentation, performance assessment methods, remedies for poor performance, invoice requirements, contract modifications, and contract management. After completing this module, students will receive a certificate of completion and 6 continuous learning points.

### **CLB 014, Acquisition Reporting Concepts and Policy Requirements for APB, DAES, and SAR**

The Acquisition Reporting Concepts and Policies for APB, DAES, and SAR module provides information on the terminology, concepts, and policies pertaining to required acquisition reports, such as the Acquisition Program Baseline (APB), Defense Acquisition Executive Summary (DAES), and Selected Acquisition Report (SAR).

Upon completion of the module, students will be able to apply these concepts and policies in the preparation and review of reports generated using the Consolidated Acquisition Reporting (CARS) software. After completing this module, students will receive a certificate of completion and 3 continuous learning points.

### **CLC 108, Strategic Sourcing Overview**

The U.S. Department of Defense, like the rest of the federal government, is discovering how strategic sourcing can be a key enabler for achieving improved quality and cost related to the purchase of goods and services. This course provides an overview of strategic sourcing concepts and techniques for helping organizations make the shift from tactical to strategic purchasing. After completing this module students will receive a certificate of completion and 2.5 continuous learning points.

### **CLC 110, Spend Analysis Strategies**

Spend Analysis is one of several tools the U.S. Department of Defense and other federal agencies are using to gain critical insights into the procurement history and spend patterns for purchased goods and services. Ultimately, a spend analysis contributes to the "commodity fact base" that forms the foundation for identifying valuable strategic sourcing improvement opportunities. After

completing this module, students will receive a certificate of completion and 4.5 continuous learning points.

### **CLE 010, Privacy Protection**

After completing this module, members of the DoD acquisition, technology, and logistics community will be able to recognize and respond appropriately to fundamental privacy concerns when performing activities in acquisition, requirements, and research by: describing the general scope of privacy protection; listing key privacy protection guidance and laws governing privacy; stating potential risks to privacy; describing existing procedures to promoting privacy protection; recognizing breaches of privacy in current cases; and naming contacts and steps to take regarding privacy questions. After completing this module students will receive a certificate of completion and 1 continuous learning point.

### **CLM 028, Space Acquisition**

The purpose of this continuous learning module is to explain the space acquisition process outlined in National Security Space Acquisition Policy 03-01 (NSS 03-01) dated 27 December 2004. After completing this module, students will receive a certificate of completion and 4 continuous learning points.

## **DAU AND WEBSTER UNIVERSITY FORM STRATEGIC PARTNERSHIP APPROVED DAU COURSES TO COUNT TOWARDS MASTER'S DEGREE**

**T**he Defense Acquisition University and Webster University have signed a memorandum of understanding to establish a strategic partnership. This is an especially significant partnership because it will allow AT&L workers with Level II professional certification in contract management to apply their DAU courses toward three master's degree programs. Webster is the first graduate school to offer a cooperative degree of this magnitude.

The purpose of the partnership is to increase the quantity and quality of educational opportunities for members of the Department of Defense acquisition, technology, and logistics workforce, individuals from other government agencies, and contractors.

At a signing ceremony at Fort Belvoir, Va., on April 19, 2006, Dr. James S. McMichael, vice president, and Travis Stewart, dean, DAU Midwest region, signed on behalf of DAU. Signing for Webster was Randy D. Wright, associate vice president and director of military programs. Dr. Neil J. George, Webster's executive vice president and



## Spotlight on DAU Learning Resources

vice president for academic affairs, had signed earlier at Webster's home campus in St. Louis, Mo.

Also present were Barbara Downs, Webster University, and Wayne Glass, DAU professor and program director for strategic partnerships, who, together with Stewart, worked for several months to bring to fruition the partnership and the educational opportunities it affords.

Webster University will provide online and residential education opportunities at military sites and metropolitan extended campuses throughout the United States that meet professional training and education requirements in accordance with the Defense Acquisition Workforce Improvement Act (DAWIA) for certain DoD AT&L career fields. In addition, Webster will offer military discounted tuition rates for qualified DoD workers taking classes at Webster University's military campuses.

AT&L workers who meet Webster's admission criteria will be able to take online graduate classes that meet the academic requirements for the master's degrees in business administration; business and organizational security management; procurement and acquisitions; management and leadership; media communications; and human resources management. Qualified AT&L workers will also be able to take online classes that meet the academic requirements for the following graduate certificate programs: Decision Support Systems, Government Contracting, and Global Commerce; and the undergraduate certificate program in Web Services.

Webster University is a private, nonprofit, accredited university with a home campus in suburban St. Louis, and an international network of over 100 campuses across the United States, Europe, China, and Thailand.

### **COURSES EQUIVALENT TO MANDATORY DOD ACQUISITION COURSES**

**E**ver wonder if your previous private-sector training and education, or training and education you may be contemplating for the future, would meet the statutory requirements for DoD acquisition certification?

Find out today by checking the matrix compiled by the Defense Acquisition University at <http://www.dau.mil/learning/appg.aspx> for a summary of equivalent credit authorization for DAU courses. (Course equivalencies are renewed annually, and are effective only as indicated.) The matrix is an extensive list of academic

courses—classroom only—offered by various training providers that have been certified as equivalent to mandatory acquisition courses provided by DAU.

To date, no provision for computer-based technologies such as computer conferencing or Internet delivery has been identified. Individuals seeking credit for equivalency courses should provide a copy of their college transcript to their servicing personnel office.

### **DEFENSE ACQUISITION UNIVERSITY 2006 CATALOG**

**T**he 2006 DAU Catalog has been posted at <http://www.dau.mil/catalog>.

The version at this Web site is configured as a traditional .pdf file broken down by chapter and appendix as well as the catalog in its entirety. Those interested may request a catalog on CD or in hard-

copy (please specify) by contacting DAU's Student Services Office at [student.services@dau.mil](mailto:student.services@dau.mil) (hardcopies are limited to one copy per request). Information in the hard-copy catalog is current as of Oct. 1, 2005. The catalog is updated online periodically throughout the training year, and new CDs are produced with each update. Currency of information contained in hardcopies and CDs should always be confirmed online.



### **CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO (CSUSB) NEW PROGRAM IN PUBLIC ADMINISTRATION**

**C**alifornia State University, San Bernardino (CSUSB) is completing development of an online master's degree in Public Administration for the DoD Acquisition Workforce (AWF). As long as you have access to the Internet, you can access this program from anywhere in the world. One additional benefit to AWF members is that upon completing the curriculum, members will receive academic credit for Level II DAWIA certification in the Program Management Career Field. The program is scheduled to kick-off in the fall quarter 2006.

More information about admission requirements and the application process can be found at <http://online.csusb.edu>. The point-of contact at CSUSB is Michael-Anne Barner: [mbarner@csusb.edu](mailto:mbarner@csusb.edu), (909) 537-3907.



## Career Development

### AIR FORCE MATERIEL COMMAND NEWS SERVICE (FEB. 27, 2006) **ACQUISITION CAREER TRACK MAY BE REDIRECTED**

*John Scaggs*

**W**RIGHT-PATTERSON AIR FORCE BASE, Ohio (AFPN)—Bringing more engineers into the Air Force acquisition career field is a priority for Air Force Materiel Command's top officer.

Gen. Bruce Carlson, AFMC commander, discussed this topic and other issues with 170 people attending the 2006 U.S. Air Force Acquisition Leaders Forum. The event was held in Charlotte, N.C., Feb. 15 to 17.

The forum brought together acquisition wing and group commanders, as well as key staff, to talk about how the Air Force develops and maintains its warfighting capabilities.

Carlson said one of his goals is to get more technically qualified young people into Air Force acquisition positions.

"We need to recruit more people with technical degrees, such as mechanical or aerospace engineers," the general said. "When I walk through a program office and ask the program manager a question, I want him or her to have the technical background to be able to answer me instead of finding someone else to answer my question."

"Right now, we're lacking people who are both technically and operationally astute," he said. "Ideally, I'd like to develop a pool of young officers who begin their Air Force careers in acquisition assignments. When they become captains, they're given an operational assignment to learn that aspect of the Air Force mission. Then, a few years later, they return to acquisition positions."

Another acquisition-related point made by Carlson was the shift in terms of who has a technological advantage.

"In years past, we had a technological advantage over other countries," he said. "We don't have that luxury anymore. Other countries, such as Germany and China, are on par with us. Today the world is the market for technology. The edge goes to whoever can develop, integrate, package, and produce that technology the fastest."

As the Air Force major command responsible for providing acquisition management services and logistics support necessary to keep Air Force weapon systems operational, AFMC plays a key role in providing that technological edge.

*Scaggs is with Air Force Materiel Command Public Affairs.*

### AMERICAN FORCES PRESS SERVICE (MARCH 3, 2006) **DOD NEEDS MORE FLEXIBLE CIVILIAN WORKFORCE, OFFICIAL SAYS**

*Gerry J. Gilmore*

**W**ASHINGTON—One day senior defense civilians could be performing jobs now only filled by generals or admirals, and rank-and-file civilians could be deployed overseas to free up military members for combat-related duties, a senior DoD civilian said here today.

"We need to be more deliberate in our thinking about the roles of each of those [positions] and where they are somewhat interchangeable," Patricia S. Bradshaw, deputy under secretary of defense for civilian personnel policy, said during an American Forces Press Service interview. A senior civilian personnel expert with 27 years of DoD and Navy service, Bradshaw worked in the corporate world for six years after she retired from the government in 1999. She came back to DoD to help its workforce become more capable and relevant in the post-Sept. 11 era. The Defense Department is looking to private-industry models to transform its management policies for senior-level and rank-and-file civilians so they can become a more capable and flexible workforce, Bradshaw said. For example, corporations rely on business executives with broad experience to oversee many kinds of enterprises, rather than tapping managers possessing expertise in narrow specialties, she said.

DoD also wants its civilians to learn new skills so they can be more flexible and available to be deployed anywhere in the world, Bradshaw said.

Military leaders need to be engaged in "managing the troops," Bradshaw said, rather than pulling duty that can be performed by civilian counterparts.

This brave new world of military-civilian interchangeability hasn't arrived yet, Bradshaw noted, because the





## Career Development

current culture is still immersed in old-style thinking. "We have not left our comfort zone," Bradshaw acknowledged.

Today, "if you try to select someone who comes with an enterprise view of the world, who has experience in joint matters, the military will beat out the civilian (candidate) every time, because we haven't been deliberate in that." It's time to fix that, Bradshaw said, "not only at the senior executive service level, but as we think about how we grow our people below the SES level and prepare them for those jobs."

### AMERICAN FORCES PRESS SERVICE (MARCH 6, 2006) **DOD TO ENROLL 11,000 CIVILIANS INTO NEW PERSONNEL SYSTEM IN APRIL**

*Gerry J. Gilmore*

**W**ASHINGTON—The Defense Department is preparing to implement the first phase of its new pay-for-performance civilian personnel system in late April, a senior official said here March 3.

At that time, about 11,000 DoD civilians will be enrolled into the National Security Personnel System, Patricia S. Bradshaw, deputy under secretary of defense for civilian personnel policy said during an American Forces Press Service interview.

"It was always a passion for me that some day we would be able to do this," said Bradshaw, who'd been familiar with pilot civilian pay-for-performance programs conducted at two Navy installations in California a decade ago.

A senior civilian personnel expert with 27 years of DoD and Navy service, Bradshaw worked in the corporate world for six years after she retired from the government in 1999. She recently came back to DoD help its workforce become more capable and relevant in the post-Sept. 11 era.

DoD and the Office of Personnel Management have partnered to create the NSPS, a personnel management process that eventually will apply to more than 650,000 DoD civilian employees.

The Navy's civilian management pilot programs conducted at facilities at China Lake and San Diego proved to be forerunners of today's NSPS, Bradshaw said. Those early programs "simplified the job descriptions so they could move people around more easily," Bradshaw re-

called. "But at the end of the day, it was the pay-for-performance piece and the desired end-state of retaining your top performers" that stood out.

Under NSPS, "if you want to be a star performer, we're going to differentiate and we're going to pay you that way," Bradshaw said. That "is the underpinning theme," she said.

Bradshaw said the world has changed greatly since terrorists attacked the United States on Sept. 11, 2001. Those attacks influenced Congress to give DoD the authority it needed to change the way it pays and manages its civilian workforce, she said.

"The support we got for that on the Hill was as a result of the lessons learned from 9-11," Bradshaw explained. The war against terrorism also prompted DoD to adopt "a system that allows us to move individuals quickly and have a more agile way of assigning people, and more specifically, figuring out what competencies they have," she said.

One of the personnel management tenets contained within the 2006 Quadrennial Defense Review is developing a competency-based personnel management infrastructure on both the military and civilian sides of the house, she said.

Bradshaw said DoD's old civilian personnel system hamstrung supervisors because its narrow job descriptions and associated paperwork worked against quickly assigning people to more urgent duties. "We really don't know what other capabilities you have or competencies you bring to the table," Bradshaw explained. "Maybe you were a contract specialist at one time."

The NSPS brings the ability to catalog and identify employees' skills so managers can access them quickly, Bradshaw said. This "allows us to make these movements and assignments in a much more agile way," she said.

The ability to quickly move civilians where they are needed most—including overseas—is a key desired benefit of adopting NSPS, Bradshaw said. "Right now we are able to do this through volunteers," she said. However, the war against terrorism brings everyone "a lot closer to the front lines" than during the Cold War.

"It causes us to think again how we deploy civilians," Bradshaw said. "We are part of the total force." DoD must be more deliberate in developing its senior civilians, she



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said, so they acquire a joint view of the military and a better understanding of how it accomplishes its missions. That kind of experience “can’t be gained by staying in your own organization—in your own stovepipe—year after year and then expecting to then leapfrog to a very senior position in the Department of Defense,” Bradshaw said.

Army Secretary Francis J. Harvey recently announced a new policy that calls for senior civilians to be moved around to gain more experience rather than staying at the same organization, Bradshaw said. “It just hasn’t happened in a very deliberate way in every Service,” she said.

In 2003, DoD began work to establish a new civilian personnel compensation and management process that rewards employees according to performance. Fifty-year-old civil service rules mostly tied employees’ raises to an individual’s length of service.

In February 2005, the American Federation of Government Employees and a dozen other labor unions filed a lawsuit against the Defense Department over the establishment of NSPS. U.S. District Judge Emmet G. Sullivan ruled Feb. 27 that proposed NSPS provisions would not protect civilian employees’ ability to bargain collectively. DoD and OPM officials continue to work with the Department of Justice to determine the next steps relative to the ruling.

Meanwhile, the Department is moving forward with implementing the performance management, compensation and classification, staffing, and workforce shaping provisions of the new system, which is slated to occur in late April, according to a statement on the NSPS Web site.

### ARMY ACQUISITION SUPPORT CENTER (FEBRUARY 2006)

#### ACQUISITION, LOGISTICS AND TECHNOLOGY FUTURES OFFICE (ALT-FO)

In keeping with the assistant secretary of the Army (acquisition, logistics and technology) military deputy’s intent to integrate ALT doctrine and concepts into an overall coordinated combat service support strategy for the Army, the ALT-FO was stood up in November 2005 at the U.S. Combined Arms Support Command (CASCOM) on a provisional status. Meanwhile, the Acquisition Support Center (ASC) is developing Table of Distribution and Allowances (TDA) and correspond-

ing Military Acquisition Position List (MAPL) positions to formalize the establishment of the new organization.

The ALT-FO is working a number of important issues affecting the Army Acquisition Corps:

- **Base Stationing Plan.** While not the lead organization, the ALT-FO has been working very closely with the Army Materiel Command’s (AMC) Command Contracting, ASC, Army Field Support Command, and the Human Resource Command (HRC), to develop a base stationing plan for the modular contracting force design. This plan will enable HRC to start assigning contingency contracting officers to contracting teams and battalions.
- **Modular Force Logistics Concept (MFLC)/Field Manual 4-93.41, Army Field Support Brigade (AFSB).** The ALT-FO is collaborating with CASCOM and AMC in the development of the MFLC and finalizing the AFSB Field Manual Interim (FMI), 4-93.41. The importance of these two manuals can not be overstated. Together, they are intended to show new ways of conducting future operations using a modular force structure as a means to achieve desired capabilities.
- **Joint Contracting and Contractor Management (JCCM).** As the Army’s lead, the ALT-FO continues to work with the J-4 on the development of this new Joint Publication.

The point of contact is the ALT-FO director, Army Col. Jacques Azemar, [jacques.azemar@us.army.mil](mailto:jacques.azemar@us.army.mil).

### AIR FORCE MATERIEL COMMAND NEWS SERVICE (APRIL 3, 2006) AFMC CIVILIAN COURSE GAINS OTHER COMMANDS’ INTEREST

*Capt. Paul Baldwin, USAF*

WRIGHT-PATTERSON AIR FORCE BASE, Ohio (AFPN)—Representatives from three commands plan to meet with Headquarters Air Force Materiel Command professional development staff here in May to discuss adapting the AFMC Orientation Course for their commands. Leadership from the three commands, Air Mobility Command, Air Education and Training Command, and Air Force Space Command, have expressed interest in developing a similar course for their civilian workforce.

While the course is significant to AFMC because its workforce is nearly 70 percent civilian, other commands recognize the benefits of giving their civilians the same opportunity through a similar course. The orientation course,



## Career Development

which has five sections, covers basic Air Force heritage, customs, and courtesies.

"The purpose of the meeting is to develop a strategy and implementation plan to share and transfer the contents of the orientation course so that they can deliver the course to their employees," said Sherre Collier, chief of leadership development in the AFMC Headquarters Personnel Directorate, which spearheaded the course's development.

"We will also be developing a draft of a proposed Air Force policy for expansion Air Force-wide upon completion of the test to transfer the program to these three commands," Collier said.

The course takes about eight hours to complete. Four of the five sections can be accomplished at a computer. The section about Air Force core values is taught in a classroom and is being added to many civilian orientation programs, AFMC officials said.

The course was introduced to AFMC civilians March 3. The idea for the course came from an emphasis by AFMC leadership on education and training for the civilian workforce. Air Force civilians were not receiving any Air Force background or history once they were hired. They simply processed into their units and began doing their jobs without any real knowledge about the organization that employed them, officials said.

"Our military colleagues have always had this experience in basic military training or commissioning sources, but our civilian hires were left on their own to learn as they went," said Barbara Westgate, AFMC executive director. "Now our civilian workforce will have this same opportunity."

Together, the five modules make up part one of the course, or Spiral 1. The modules are *Air Force heritage and today*; *AFMC heritage and today*; *Air Force customs and courtesies*; *Air Force core values*; and *Air Force core competencies*.

AFMC civilians are awarded the new Air Force civilian pin when they complete the first five modules of the course. The pin is about the size of a nickel, pewter in color, and is dominated by the Air Force symbol. It recognizes the pride and dedication in civil service and a commitment to civilian professional development, Collier said.

Testing and delivery of Spiral 2 is scheduled for October, Westgate said. Spiral 2 consists of an additional three modules: *force development*; *workforce health, safety, and security*; and *personnel administration*.

*Baldwin is with Air Force Materiel Command Public Affairs.*

### AIR FORCE MATERIEL COMMAND NEWS SERVICE (APRIL 7, 2006) ESC RAPID IMPROVEMENT EVENT SPEEDS UP HIRING PROCESS

Kevin Gilmartin

**H**ANSCOM AIR FORCE BASE, Mass. (AFPN)—Electronic Systems Center's first Rapid Improvement Event cut the fat out of the civilian hiring process here, identifying a potential 58 percent reduction in the total time it takes to process a Request for Personnel Action, or RPA, and submit it to the Air Force Personnel Center.

In only three days, team members from ESC's wings and functional organizations, along with representatives from ESC's Directorate of Personnel and the Hanscom Civilian Personnel Office, stripped down the recruitment process and identified areas for elimination or improvement that can reduce the average total process time here from 40 to 45 days to only 10 to 20 days. Following its report to management and ESC senior leaders, the team is working to implement the identified improvements over the next three to six months.

"Our first Rapid Improvement Event was a great success, showing what people can accomplish when they focus on process improvement," said Air Force Maj. Gen. Arthur Rooney, ESC vice commander, who served as the team's sponsor. "The bottom-line benefits of what this team accomplished will be realized when managers fill civilian vacancies faster, avoiding wasteful downtime. I look forward to many more of these RIEs taking place across the center."

Air Force Capt. Robert Enrico, a reservist who works as a Lean expert for Honeywell in his civilian job and also is a green belt in Six Sigma, served as the team's facilitator. Lean and Six Sigma are two process improvement tools used in industry that are essential parts of Air Force Smart Ops 21, an Air Force-wide effort to identify and eliminate waste and inefficiencies.

"We only had three days for this Rapid Improvement Event, so we had to really focus our scope on what takes



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place from when an RPA is initiated until it is sent forward to AFPC,” Enrico said. “We took a structured approach to the problem, first identifying our ‘as-is’ state, showing where we are now. We then determined what the ‘ideal state’ could be, and also identified a future state, that reflects how we are going to continue to improve.”

“The first day and a half, I thought we were never going to be able to Lean the process, but then we went from zero to 100 miles per hour,” said Michael Gotschall of ESC’s Plans and Programs Directorate.

The Daedalian Room of the Hanscom Club was a beehive of activity as the team mapped out a “value stream” for the current RPA process, filling countless easel pads with diagrams of “touch points” for the RPA as it flows through the current process.

The value-stream mapping clearly illustrated where the “hands off” state was during the process, which is often wasted time. The group determined that it currently takes from 40 to 45 days to coordinate a recruitment action through the current process at Hanscom; however, the “touch time” involved with processing an RPA without any waiting is from 15 to 16.5 hours.

The mapping also indicated an inefficient process with an RPA flowing back and forth among affected organizations—including wings, functional offices, civilian personnel, and ESC’s Personnel Directorate. Often times, these touch points are necessary to correct defects identified in the paperwork. In fact, the team estimated 80 percent of all RPAs submitted to Civilian Personnel are defective. Increased use of standard core documents, or position descriptions, will help reduce the need to send back an RPA.

“Every time there’s a touch point, it slows down the process and increases the chance for error,” said Donna Desimas of ESC’s Directorate of Personnel, “so our goal was to eliminate as many touch points as possible.”

In identifying the ideal state, the team recommended combining the wing and functional processes, and accomplishing them at the wing level. So, for a financial management vacancy in the Battle Management Systems Wing, for example, the wing will handle tasks such as calling AFPC, initiating the RPA, and discussing it with civilian personnel. The team also decided that, rather than having paperwork flowing among the Classification Branch of Civilian Personnel, the Manpower Office, and

the resource manager, representatives from those offices will meet and take care of all details relating to a specific RPA in one sitting. The future state of the civilian hiring processes in the next few years may feature integrated manpower and civilian classification processes, standard core documents for civilian positions, and classification of civilian positions done by AFPC.

Although exhausted by the pace, team members said they learned a lot and enjoyed their time participating in the Rapid Improvement Event.

“There are a lot of people out there with a lot of good ideas, and when you give them the opportunity to bring those ideas to the table, the organization benefits tremendously,” said Alicyn Cerulli of the Operations Support Systems Wing. She said the experience helped her learn different brainstorming and problem-solving techniques.

“This was really time well spent,” Cerulli said. “We all felt we could speak freely and help make a change for the better. If we can do even half of what we plan, it will be a huge improvement over the current civilian hiring process.”

“I’m proud of all these people and what they accomplished,” Rooney said. “They set a great example for all of us to follow as we continue to implement Smart Ops 21 across the center.”

*Gilmartin is with Electronic Systems Center Public Affairs.*

### NSPS 101 PROVIDES OVERVIEW OF HUMAN RESOURCES SYSTEM

**T**he National Security Personnel System (NSPS) Web site now hosts an online tutorial, *NSPS 101*, which provides an overview of the human resources elements of NSPS, covering such topics as conversion to NSPS, classification, compensation, performance management, staffing flexibilities, and workforce shaping. NSPS 101 is a Web-based course designed to address questions such as “What happens to me when my position is converted to NSPS?” to “How does the pay-for-performance system work?” NSPS 101 serves as a foundation for ongoing training in instructor-led courses that begin shortly before conversion into NSPS.

The course also includes a conversion calculator that identifies an employee’s career group, pay schedule, pay band, and estimate of within-grade increase buy-in. To take NSPS 101, go to <http://www.cpmc.osd.mil/nsps/nsps101/nsps/index.htm>.





## Policy & Legislation

### DEFENSE FAR SUPPLEMENT (DFARS) CHANGE NOTICE 20060223

**D**oD published the following interim, final, and proposed DFARS rules on Feb. 23, 2006. Additional information on these rules is available at <http://www.acq.osd.mil/dpap/dars/dfars/changenotice/index.htm>.

#### Interim Rule

##### Trade Agreements Thresholds and Morocco Free Trade Agreement (DFARS Case 2005-D017)

Incorporates increased thresholds for application of the World Trade Organization Government Procurement Agreement and the Free Trade Agreements, as determined by the United States Trade Representative; implements a new Free Trade Agreement with Morocco; and amends the list of end products that are subject to trade agreements.

#### Final Rules

##### Administrative Matters (DFARS Case 2003-D084)

Relocates administrative procedures for signature of contract documents to the DFARS Procedures, Guidance, and Information (PGI); and deletes text on security requirements and IRS reporting requirements that are adequately addressed in the FAR.

##### Uniform Contract Line Item Numbering (DFARS Case 2003-D082)

Eliminates certain exceptions to requirements for uniform contract line item numbering, to promote standardization in contract writing; and relocates to PGI, procedures for use and numbering of contract exhibits and attachments.

##### Construction Contracting (DFARS Case 2003-D034)

Updates requirements for contracting for construction; and relocates to PGI, procedures for distribution and use of contractor performance reports, handling of government estimates of construction costs, use of bid schedules with additive or deductive items, and establishment of technical working agreements with foreign governments.

##### Contractor Insurance/Pension Reviews (DFARS Case 2003-D050)

Clarifies responsibilities of administrative contracting officers and auditors in conducting reviews of a contrac-

tor's insurance programs, pension plans, and other deferred compensation plans; and updates and relocates to PGI, the procedures for those reviews.

##### Business Restructuring Costs (DFARS Case 2004-D026)

Finalizes, without change, the interim rule published on July 26, 2005 (DFARS Change Notice 20050726) addressing procedures for allowing contractor external restructuring costs when savings will result for DoD. The rule authorizes the Director of the Defense Contract Management Agency to make determinations of savings related to contractor restructuring costs that are expected to be less than \$25 million over a 5-year period; and clarifies requirements for projected restructuring costs and savings to be computed on a present value basis.

#### Proposed Rule

##### Small Business Programs (DFARS Case 2003-D047)

Updates requirements for contracting with small business and small disadvantaged business [http://www.dau.mil/Spotlight/Workforce\\_Development\\_Award.asp](http://www.dau.mil/Spotlight/Workforce_Development_Award.asp).

### DEFENSE FAR SUPPLEMENT (DFARS) CHANGE NOTICE 20060321

**D**oD published the following final and proposed DFARS changes on March 21, 2006. Additional information on these changes is available at <http://www.acq.osd.mil/dpap/dars/dfars/changenotice/index.htm>.

#### Final Rules

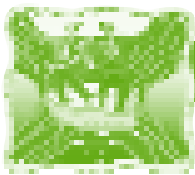
##### Consolidation of Contract Requirements (DFARS Case 2003-D109)

Finalizes the interim rule published on Sept. 17, 2004 (DFARS Change Notice 20040917), placing restrictions on consolidating two or more separate requirements into a single solicitation and contract with a total value exceeding \$5 million. Implements Section 801 of the National Defense Authorization Act for Fiscal Year 2004.

The final rule contains additional changes to clarify the applicability of the rule and the requirements for market research before soliciting offers for acquisitions that could lead to a consolidation of contract requirements.

##### Component Breakout (DFARS Case 2003-D071)

Relocates policy on component breakout from DFARS Appendix D to DFARS Part 207; and relocates procedures for component breakout from DFARS Appendix D to PGI.



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Breakout of components of end items permits the government to purchase the components directly from the manufacturer or supplier and furnish them to the end item manufacturer as government-furnished material for future acquisitions.

### **Contractor Performance of Acquisition Functions Closely Associated with Inherently Governmental Functions (DFARS Case 2004-D021)**

Finalizes the interim rule published on March 23, 2005 (DFARS Change Notice 20050323), that permits contracting for acquisition functions closely associated with inherently governmental functions only if: appropriate DoD personnel are not available to perform the functions; appropriate DoD personnel will oversee contractor performance and will perform all associated inherently governmental functions; and the agency addresses any potential contractor organizational conflict of interest. Implements Section 804 of the National Defense Authorization Act for Fiscal Year 2005. The final rule contains an additional change to clarify the requirement for government oversight of contractor personnel.

### **Competition Requirements for Federal Supply Schedules and Multiple Award Contracts (DFARS Case 2004-D009)**

Updates and clarifies requirements for competition in the placement of orders for supplies or services under Federal Supply Schedules and multiple award contracts. The rule establishes approval requirements for non-competitive orders that are consistent with the approval requirements found in the FAR and makes additional changes for consistency with current FAR requirements for use of Federal Supply Schedules; relocates procedural information on the use of Federal Supply Schedules to PGI; and adds PGI guidance on the appropriate use of exceptions to competition requirements.

### **Approval of Service Contracts and Task and Delivery Orders (DFARS Case 2002-D024)**

Finalizes the interim rule published on May 24, 2005 (DFARS Change Notice 20050524), requiring DoD activities to comply with review and approval requirements when acquiring supplies or services through the use of non-DoD contracts in amounts exceeding the simplified acquisition threshold. Implements Section 801 of the National Defense Authorization Act for Fiscal Year 2002 and Section 854 of the National Defense Authorization Act for Fiscal Year 2005. The final rule contains additional changes to address requirements for departments

and agencies to submit an annual report on the use of non-DoD contracts.

### **Incentive Program for Purchase of Capital Assets Manufactured in the United States (DFARS Case 2005-D003)**

Finalizes the interim rule published on May 24, 2005 (DFARS Change Notice 20050524), requiring consideration of the purchase of capital assets (including machine tools) manufactured in the United States, when conducting source selections and making award fee determinations for major defense acquisition programs. Implements Section 822 of the National Defense Authorization Act for Fiscal Year 2004. The final rule contains additional changes to clarify the statutory requirements.

### **Acquisition of Ball and Roller Bearings (DFARS Case 2003-D021)**

Updates requirements for the acquisition of ball and roller bearings from domestic sources, and clarifies the applicability of these requirements to components of commercial items. Addresses the provisions of annual DoD appropriations acts and eliminates text addressing obsolete statutory provisions.

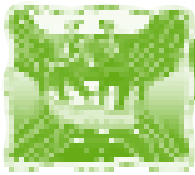
## **Proposed Rules**

### **Electronic Submission and Processing of Payment Requests (DFARS Case 2005-D009)**

Proposes amendments to the exceptions to the general requirement for contractors to submit payment requests in electronic form. The DFARS presently provides an exception for contractors that are unable to submit electronic payment requests. This exception has been subject to differing interpretations as to what constitutes a contractor's inability to submit an electronic payment request. The proposed rule replaces this exception with one that applies when the administrative contracting officer determines that electronic submission would be unduly burdensome to the contractor.

### **Reports of Government Property (DFARS Case 2005-D015)**

Proposes revisions to requirements for reporting of government property in the possession of DoD contractors. The proposed rule replaces existing DD Form 1662 reporting requirements with requirements for DoD contractors to electronically submit, to the Item Unique Identification (IUID) Registry, the IUID data applicable to the government property in the contractor's possession. This will result in more accurate and efficient reporting and recordkeeping.



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### Debarment, Suspension, and Business Ethics (PGI Case 0000-P010)

Adds information on contractor responsibility matters and use of GSA's Excluded Parties List System.

### CONUS Antiterrorism Requirements (PGI Case 0000-P046)

Adds requirements for consideration of antiterrorism measures in acquisition planning.

### Taxes (PGI Case 0000-P024)

Contains information for use in addressing tax issues under DoD contracts.

### DEFENSE SCIENCE BOARD (FEBRUARY 2006)

#### TRANSFORMATION: A PROGRESS ASSESSMENT, VOLUME I

In a February 2006 memorandum to Under Secretary of Defense (Acquisition, Technology and Logistics) Kenneth J. Krieg, Defense Science Board Chairman Dr. William Schneider Jr., has forwarded Volume I of the Final Report of the DSB 2005 Summer Study on "Transformation: A Progress Assessment" <<http://www.acq.osd.mil/dsb/reports.htm>>. Volume I of the study, which was chaired by retired Air Force Gen. Larry Welch and Dr. Robert Hermann, assessed the Department of Defense's progress towards transformation, concentrating on identifying objectives and recommending actions to meet emerging challenges. Volume II, which is nearing a final draft, will be the study's sub-panel reports.

According to the report, the Department of Defense has succeeded in producing revolutionary changes in its ability to perform major combat operations through evolutionary improvements, as demonstrated in recent conflicts. DoD has improved its adaptation in other operational capabilities by leveraging valuable combat experienced personnel. Of concern, however, DoD has produced little change or improvement in the business practices of the enterprise, namely a requirement to align the major DoD entities, develop a multi-year business plan, and reform the acquisition process. The report also addresses other areas of concern that could potentially impact a successful DoD transformation: Joint Concept Development, human resources, our deficiency of multi-agency campaign planning, and future challenges for the defense industry.

Endorsing the Task Force's recommendations, Schneider said that their observations and recommendations have been consistent with the previous DSB studies and,

if implemented, will improve the Department's transition to an organization adapted to meet the challenges of the 21st century.

### AIR FORCE PRINT NEWS (MARCH 3, 2006)

#### AIR FORCE LEADERS TESTIFY ON PROCESSES USED TO COMBAT COSTS

Staff Sgt. C. Todd Lopez, USAF

WASHINGTON (AFPN)—The Air Force has seen a rise in the cost of doing business, Secretary of the Air Force Michael W. Wynne told members of the House Armed Services Committee during testimony March 1.

"We are experiencing unyielding second order effects that continue to drain our top line—we are exhausting all our assets at a much higher rate than forecasted," the secretary said.

Some of those costs involve expanding personnel benefits and rising health-care costs. Operational and maintenance costs have also risen, he said.

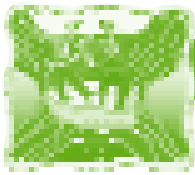
However, the secretary told members of the congressional committee the Air Force has found ways to deal with some rising costs.

"To rein in personnel costs, we are using total force integration," the secretary said. "This has exposed redundancies to capitalize on as we continue to operationalize the Guard and Reserve."

Besides better using Air National Guard and Air Force Reserve forces, the Service has also implemented Air Force Smart Operations 21. The program is an Air Force-developed mix of private sector practices designed to optimize business processes and to save money.

"We have instituted AFSO21—smarter and leaner operations," he said. "No process is immune from this Air Force-wide critical review. Efficiency from AFSO21, total force integration, and lessons learned from 15 years under fire permit an end strength reduction of 40,000 full-time equivalents over the future years defense plan."

The Air Force is planning to reduce its end strength by as many as 40,000 people over the next few years. Some congressional members asked how that is possible, considering the stress on the military because of the global war on terrorism.



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Chief of Staff of the Air Force Gen. T. Michael Moseley explained that because of efficiencies from new equipment and new processes, the Air Force can do the same amount of work with fewer people.

He cited past force reductions, such as replacing telephone operators with automated switching systems and contracting out vehicle fleet maintenance technicians. Both are examples of how the Air Force reduced its end strength.

"There are natural efficiencies as we modernize and recapitalize where we can come down on this," the general said. "So to have extra people just to have them, I'm not sure is the right sight picture."

Wynne also asked Congress to lift restrictions on when the Service is allowed to retire military aircraft. Maintenance costs on some aircraft are high. Allowing the Air Force to retire those aircraft would save the Service money.

Moseley also told committee members that he looked forward to expanding the mission of unmanned aerial vehicles, such as the MQ-1 Predator Unmanned Aerial Vehicle, beyond their current role.

"And I'm a big fan of looking at applications that include something that looks a whole lot like a bomber, that may be unmanned," the general said. "Something that has range and persistence and payload that can penetrate airspace and continue to hold targets at risk."

Also of interest to committee members was the role of the F-22A Raptor aircraft, now into initial operational capability at Langley Air Force Base, Va. Moseley told committee members the aircraft is performing flawlessly and is central to the Air Force's role as the world's dominant air power.

"We've flown (the F-22A) in Operation Noble Eagle missions over the Capital and the East Coast. We have plans to take it out of the continental United States in the spring," the general said. "You begin a joint fight with air dominance. Whether it is a surface maritime or a surface land component, that's what you have to do. And that's what (the F-22A) will do."

Moseley and Wynne also discussed the Air Force's efforts to recapitalize on the KC-135 Stratotanker, the development of a joint cargo aircraft with the Army, and a

stronger emphasis on foreign language and cultural skills to be developed in the Air Force.

"Next academic year at Maxwell, every person that goes through the Senior Noncommissioned Officer Academy, Air Command and Staff, and Air War College will take one of four languages—Arabic, Chinese, Spanish, or French—and focus on regional studies," Moseley said.

The general also said he is working with the State Department to get some of the graduates of those courses into foreign embassies to help develop foreign cultural skills in airmen.

### ARMY NEWS SERVICE (MARCH 7, 2006) **SECARMY ORDERS ARMY-WIDE BUSINESS TRANSFORMATION**

*Staff Sgt. Carmen L. Burgess, USA*

**W**ASHINGTON—A deployment order went out Army-wide on March 6 to execute the business transformation principles of Lean Six Sigma throughout the force to free up resources for the operational Army and to more quickly provide equipment to the soldier.

"This is the largest deployment of management science since the beginning of the science," said Mike Kirby, deputy under secretary of the Army for Business Transformation. This position was created to oversee the deployment of Lean Six Sigma across the Army. Kirby emphasized the need for both leaders and workers to embrace the principles.

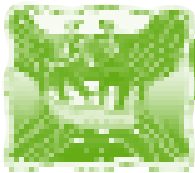
"The increased focus on measuring results brought about by personal leadership," said Secretary of the Army Francis Harvey, "will ensure that the Army realizes evolutionary transformation in all its processes, and ultimately benefits from revolutionary outcomes."

"Where it has already been implemented, it has been successful," Kirby said. "The workforce is 100 percent behind it."

During fiscal 2005, the Army Materiel Command saw \$110 million in savings and cost avoidance as a result of implementing LSS practices.

For example, by removing waste and better controlling output, Letterkenny Army Depot, Pa., has been the forerunner in the program in reducing costs by \$11.9 million in PATRIOT air defense missile system recapitalization.





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Other Army depots have also made dynamic changes by applying LSS principles. Pine Bluff Arsenal, Ark., has reduced repair recycle time by 90 percent and increased its production rate by 50 percent on M-40 protective masks. Red River Army Depot, Texas, has increased the output of vehicle inspection and repair by 220 percent.

### LSS Benefits Warfighters

"We are turning things around faster for the warfighter," said Gen. Benjamin Griffin, commanding general of Army Materiel Command. "This is showing significant savings and improvement wherever it has been implemented."

To date, nearly 1,400 leaders, referred to as "black and green belts," across the Army have been trained to teach others how to implement the business practice, said Maj. Gen. Ross Thompson, director for Army Programs, Analysis, and Evaluation.

"This is a powerful mechanism to change the way we do business," he said.

"This is a proven body of knowledge," Kirby said, "that requires a leadership commitment." In order to accelerate the process, he said a top down and bottom up approach must be taken to implement changes.

This means that management and technicians need to collaborate in order to redefine the process needed to improve speed, quality, and cost.

But Harvey doesn't plan to stop the application of the process on the factory floors. He is applying the principles to his own administrative services, installations, military construction, recruiting, medical capabilities, and civilian human resources.

In July 2005, the secretary and Army chief of staff Gen. Peter Schoomaker sent out a letter to the Army's major commands requesting an assessment be made of processes that would benefit from business transformation. More than 230 processes have been nominated by the MACOMs to be revamped.

"We are personally committed to leading these changes," the leaders wrote. "Business transformation is critical to the Army's continued success."

"This is a fiduciary responsibility we have to the nation," said Harvey in a media roundtable March 3. "We are changing the way we manage things. We are going to get more output for the same amount of money."



During his visit to Corpus Christi Army Depot Jan. 25, Secretary of the Army Francis Harvey (right) was shown some of the different pieces of aviation equipment that are refurbished and re-installed on aircraft. More than 25,000 pieces of aviation maintenance equipment have come through the depot in the last year.

Photograph by Staff Sgt. Carmen Burgess, USA.

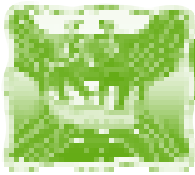
Harvey's passion is something that he is spreading to others.

"We want everyone to be passionate about transformation," the secretary said. He said he is striving for a three-dimensional business culture that is dedicated to continuous improvement, focused on performance, and based on the enduring Army values.

### NAVY NEWSSTAND (MARCH 10, 2006) NAVY-COAST GUARD NATIONAL FLEET POLICY UPDATED

Gordon I. Peterson

**W**ASHINGTON (NNS)—Chief of Naval Operations Adm. Mike Mullen and Commandant of the Coast Guard Adm. Thomas H. Collins



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jointly approved a new National Fleet policy statement in early March aimed at strengthening Navy-Coast Guard cooperation and tailored operational integration of each Service's multimission platforms, infrastructure, and personnel.

Building on more than two centuries of close collaboration and joint operations in peace and war, this firm commitment to shared purpose directly supports the new National Strategy for Maritime Security approved by President Bush this past September.

"Security of the maritime domain can be accomplished only by seamlessly employing all instruments of national power in a fully coordinated manner," the strategy states.

The National Fleet, which originated in 1998, reflects an agreement between the Navy and the Coast Guard to plan, acquire, and maintain forces that support and complement each Service's roles and missions. With this latest update, the Services will be able to share assets, pro-

viding unique capabilities for expeditionary warfare and maritime homeland defense and security missions.

"While we remain separate Services, we recognize that full cooperation and integration of our non-redundant and complementary capabilities must be achieved," Mullen and Collins said. "This continues to ensure the highest level of maritime capabilities and readiness for the nation's security and investment.

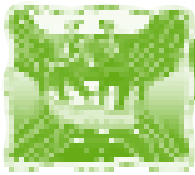
"A joint and interoperable maritime force is needed to establish the numerical sufficiency required for effective global operations and to effectively foster and leverage regional international partnerships in order to achieve global maritime domain awareness and maritime transportation security in the era of globalization," they said.

The Navy-Coast Guard National Fleet has three main attributes. First, it is composed of ships, boats, aircraft, and shore command-and-control nodes that are affordable, adaptable, interoperable, and possess complementary



WASHINGTON, D.C. (March 9, 2006)—Chief of Naval Operations (CNO) Adm. Mike Mullen holds up briefing material that describes the National Fleet Policy between the Navy and Coast Guard to the Senate Armed Services Committee. As part of his testimony concerning the National Defense Authorization Request for Fiscal Year 2007 and the Future Years Defense Program, the CNO shared the witness table alongside Secretary of the Navy (SECNAV) Donald C. Winter and Commandant of the Marine Corps (CMC) Gen. Michael W. Hagee. The Navy and Coast Guard National Fleet Policy is an agreement between the two Services to plan together, acquire, and maintain forces that support and complement each Service's role and missions.

U.S. Navy photograph by Chief Photographer's Mate Johnny Bivera.



capabilities. Secondly, these forces will be designed, wherever possible, around common command, control, and communications equipment; operational, weapon, and engineering systems; and include coordinated operational planning, procurement, training, and logistics. Lastly, the National Fleet will be capable of supporting the broad spectrum of U.S. national security requirements—from power projection to defense of the homeland.

“As the Navy develops shallow water and riverine capabilities, we will seek increasing synergies with the Coast Guard, at home and abroad, exploring complementary design, acquisition, operations, and training initiatives,” Mullen testified before the House Armed Services Committee March 3.

He described the new National Strategy for Maritime Security as a “very critical and important document,” and said he and Collins will build on their strong relationship to achieve the level of maritime domain awareness they think vital for the future. The Coast Guard agrees.

“It is not narrowly constructed as a national counterterrorism plan; it is an all-threat plan including counterdrugs, migrant issues, fishery enforcement, and other security areas—a systems view of the maritime,” Collins said recently. “There is a lot of work to be done to give meaning and add meat to those plans, and the Navy and the Coast Guard are engaged in doing that.”

The Navy’s contribution to the National Fleet consists of multimission ships, submarines, and aircraft, as well as Naval Coastal Warfare, Naval Special Warfare, and C4ISR assets designed for the full spectrum of naval operations, from peacetime engagement to global war. The Coast Guard’s contribution is its statutory authorities; multimission cutters, boats, aircraft, and C4ISR; as well as law enforcement and environmental response teams. This contribution, designed for the full spectrum of Coast Guard missions, includes maritime security operations, counterterrorism-crisis response, and filling the joint combatant commanders’ theater plans calling for general-purpose warships.

“Our Services have a record of working together that goes back a long way,” Mullen said. “Along with the Marine Corps, our relationship with the Coast Guard is the most critical relationship we can possibly have when it comes to securing the maritime domain.”

*Peterson is with Chief of Naval Operations Public Affairs.*

### BUSINESS TRANSFORMATION AGENCY RELEASES ANNUAL REPORT TO CONGRESS

**O**n March 15, the Defense Business Transformation Agency (BTA) submitted their 2006 Congressional Report regarding the status of the Department of Defense’s (DoD’s) Business Transformation effort. Read the entire report at <http://www.defenselink.mil/dbt/>.

### AIR FORCE PRINT NEWS (MARCH 24, 2006)

#### AIR FORCE RELEASES UAV STRATEGIC VISION

**W**ASHINGTON—The Air Force recently completed a vision document to provide high-level guidance to Service development and integration of unmanned aircraft for the next 25 years.

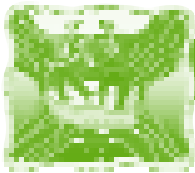
While the Air Force has been experimenting with unmanned aerial vehicles (UAVs) since 1962, the technology has only recently evolved to a point to provide truly transformational capabilities to the joint commander, said Brig. Gen. Stanley Clarke, deputy director of the Air Force Strategic Planning Directorate.

“Sensors and payloads are now smaller, lighter, and more capable,” Clarke said. “And the required command, control, communications, computer, intelligence, surveillance, and reconnaissance technologies have only recently come online.”

Air Force UAVs bring persistence to the fight and also have the ability to work in hazardous environments, said Col. Gail Wojtowicz, chief of the Air Force’s Future Concepts and Transformation Division.

“Unmanned aircraft are a critical piece of ongoing Air Force transformation,” Wojtowicz said. “Their persistence couples an unblinking eye with the ability to rapidly strike targets of opportunity, such as fleeing terrorists or insurgents. They also operate in dangerous chemical or biological environments, require a much smaller forward logistical footprint, and are as effective in conducting mundane tasks in the 30th hour as they are in the first.”

The Air Force produced the UAV strategic vision document, entitled “The U.S. Air Force Remotely Piloted Aircraft and Unmanned Aerial Vehicle Strategic Vision,” primarily in response to recommendations by the 2004 Air Force Futures Game, which was a guided strategic discussion about the Air Force’s future capabilities.



U.S. Army Sgt. Juan Rivera launches a Raven unmanned aerial vehicle into the air over Baghdad, Iraq, on Dec. 15, 2005. The Raven system is used to conduct surveillance in outlying areas in downtown Baghdad. Rivera is assigned to the 1st Battalion, 9th Field Artillery, 3rd Infantry Division. DoD photograph by Pfc. William Servinski II, USA.

While not directive in nature, the document lays out a broad vision and provides recommendations. These include developing common terminology, adequately funding relevant science and technology, coordinating efforts with other Services, managing cost and performance expectations, reviewing and updating laws and policies, and integrating unmanned aircraft with manned and space platforms.

The new strategic vision document also addresses the historical context of UAVs, the unique attributes of the aircraft, and the various challenges in fielding them, Clarke said.

"While unmanned aircraft have incredible potential, they still have formidable obstacles to overcome," he said. "They must be integrated into national and international airspace, their costs must be kept in check, and the C4ISR systems they depend on are vulnerable to attack and use an incredible amount of bandwidth." The general also said there are policy and legal issues to address in regards to UAVs, as well as unique organizational, manning, and training issues.

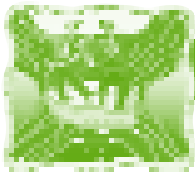
The new Air Force strategic vision is consistent with the Office of the Secretary of Defense Unmanned Aircraft System Roadmap released in October, as well as the recently completed Quadrennial Defense Review, Clarke said.

*The U.S. Air Force Remotely Piloted Aircraft and Unmanned Aerial Vehicle Strategic Vision is available on Air Force Link at <<http://www.af.mil/shared/media/document/AFD-060322-009.pdf>>.*

### GENERAL SERVICES ADMINISTRATION NEWS RELEASE (APRIL 7, 2006) **GSA RECEIVES FINAL CONGRESSIONAL APPROVAL TO ESTABLISH THE FEDERAL ACQUISITION SERVICE**

**W**ashington, D.C.—The U.S. General Services Administration (GSA) announced today that its plan to create the Federal Acquisition Service (FAS) has received final approval from Congress. FAS will be formed by the merger of GSA's Federal Supply Service (FSS) and the Federal Technology Service (FTS).





## Policy & Legislation

The plan was approved today by the Senate Appropriations subcommittee with oversight for the agency; House Appropriations leaders gave their approval on April 6. GSA delivered the plan to Congress on February 27, following a request for review by the House and Senate Appropriations committees.

“This is a great day for GSA and for the new FAS,” said Acting GSA Administrator David L. Bibb. “We are now positioned to begin FAS implementation and adapt to a marketplace that has grown far more complex and demanding over the decades. With this evolution, we will increase GSA’s value to our federal agency customers and the American taxpayer.”

“I am pleased to report that the Senate Appropriations Subcommittee on Transportation, Treasury, the Judiciary, Housing and Urban Development, and Related Agencies has given its full approval and support to the GSA plan for reorganization,” said Senator Kit Bond (R-Mo.), chairman of the subcommittee. “My colleagues in the Senate and I are optimistic that the proposed reforms will bring about the new FAS, and I look forward to continuing to support GSA as the agency moves forward.”

This new FAS will include five major customer centers, among these:

- Customer Accounts and Research (CAR). CAR will permit FAS to better understand customer requirements and become a strategic partner in helping agencies meet their requirements.
- Acquisition Management. The FAS emphasis on acquisition management will ensure that its activities are fully compliant with laws, regulations, and policies, and that operating practices are consistent across business lines.
- Integrated Technology Services. This portfolio combines the business lines from information technology, some professional services, and telecommunications.
- General Supplies and Services. This portfolio acquires a broad range of commercial products as well as some professional services, as well as GSA specialized logistics-based activities.
- Travel, Motor, Vehicle, and Card Services. This portfolio operates with respective supplier industries but shares commonalities for customers that provide opportunities for synergy and scale.

In turn, each portfolio will be comprised of various divisions in order to serve customer needs and establish GSA as the federal community’s agency of choice when it comes to acquiring goods, services, and other workplace needs.

“We believe the new FAS will help GSA improve its support for federal agencies as they strive to meet the needs of the American people,” said Acting FAS Commissioner G. Martin Wagner. “Congressional support for the new FAS was key to helping GSA institute a more effective and efficient agency that will offer timely solutions at excellent prices, thereby allowing agencies to concentrate on their core missions.”

The new FAS competencies in acquisition excellence, program expertise, and policy compliance will provide value to the taxpayer by:

- Lowering the cost of government by efficiently leveraging the government’s buying power to obtain the best value in products and services from suppliers at the lowest possible transaction cost
- Increasing value to commercial suppliers of all types and sizes, by creating consistent and innovative processes to offer their products and services to government agencies more efficiently.

*Media contact is Neil Franz, (202) 501-1231, or e-mail [neil.franz@gsa.gov](mailto:neil.franz@gsa.gov).*

### GOVERNMENT ACCOUNTABILITY OFFICE REPORTS (JANUARY – APRIL 2006)

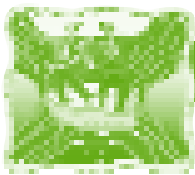
**T**he following Government Accountability Office (GAO) Reports were issued between January and April 2006 and may be of interest to the acquisition workforce at large. Review the final reports at <http://www.gao.gov>.

#### Business, Industry, and Consumers

- **Small Business Innovation Research:** Information on Awards Made by NIH and DoD in Fiscal Years 2002 through 2004, GAO-06-565, April 14, 2006

#### Employment

- **Human Capital:** Agencies Are Using Buyouts and Early Outs with Increasing Frequency to Help Reshape Their Workforces, GAO-06-324, March 31, 2006



### Government Operations

- **Paperwork Reduction Act:** New Approaches Can Strengthen Information Collection and Reduce Burden, GAO-06-477T, March 8, 2006
- **Federal Contact Centers:** Mechanism for Sharing Metrics and Oversight Practices along with Improved Data Needed, GAO-06-270, February 8, 2006

### National Defense

- **Defense Acquisitions:** Major Weapon Systems Continue to Experience Cost and Schedule Problems under DoD's Revised Policy, GAO-06-368, April 14, 2006
- **Unmanned Aircraft Systems:** Improved Planning and Acquisition Strategies Can Help Address Operational Challenges, GAO-06-610T, April 6, 2006
- **Defense Acquisitions:** Actions Needed to Get Better Results on Weapons Systems Investments, GAO-06-585T, April 5, 2006
- **Defense Acquisitions:** DoD Wastes Billions of Dollars through Poorly Structured Incentives, GAO-06-409T, April 5, 2006
- **Defense Acquisitions:** Improved Business Case Key for Future Combat System's Success, GAO-06-564T, April 4, 2006
- **Force Structure:** Capabilities and Cost of Army Modular Force Remain Uncertain, GAO-06-548T, April 4, 2006
- **Contract Security Guards:** Army's Guard Program Requires Greater Oversight and Reassessment of Acquisition Approach, GAO-06-284, April 3, 2006
- **Defense Acquisitions:** Assessments of Selected Major Weapon Programs, GAO-06-391, March 31, 2006
- **Highlights of a GAO Forum:** Managing the Supplier Base in the 21st Century, GAO-06-533SP, March 31, 2006
- **Defense Acquisitions:** Challenges Associated with the Navy's Long-Range Shipbuilding Plans, GAO-06-587T, March 30, 2006
- **Defense Logistics:** Preliminary Observations on Equipment Reset Challenges and Issues for the Army and Marine Corps, GAO-06-604T, March 30, 2006
- **Tactical Aircraft:** Recapitalization Goals Are Not Supported by Knowledge-Based F-22A and JSF Business Cases, GAO-06-523T, March 28, 2006
- **Post-Hearing Questions for the Record Related to the Department of Defense's National Security Personnel System (NSPS),** GAO-06-582R, March 24, 2006
- **Defense Logistics:** Several Factors Limited the Production and Installation of Army Truck Armor during Current Wartime Operations, GAO-06-160, March 22, 2006
- **Tactical Aircraft:** Recapitalization Goals Are Not Supported by Knowledge-Based F-22A and JSF Business Cases, GAO-06-487T, March 16, 2006
- **Defense Acquisitions:** Missile Defense Agency Fields Initial Capability but Falls Short of Original Goals, GAO-06-327, March 15, 2006
- **Joint Strike Fighter:** DoD Plans to Enter Production before Testing Demonstrates Acceptable Performance, GAO-06-356, March 15, 2006
- **Unmanned Aircraft Systems:** New DoD Programs Can Learn from Past Efforts to Craft Better and Less Risky Acquisition Strategies, GAO-06-447, March 15, 2006
- **Defense Acquisitions:** Improved Business Case Is Needed for Future Combat System's Successful Outcome, GAO-06-367, March 14, 2006
- **Joint Strike Fighter:** Management of the Technology Transfer Process, GAO-06-364, March 14, 2006
- **Defense Logistics:** More Efficient Use of Active RFID Tags Could Potentially Avoid Millions in Unnecessary Purchases, GAO-06-366R, March 8, 2006
- **Defense Acquisitions:** Business Case and Business Arrangements Key for Future Combat System's Success, GAO-06-478T, March 1, 2006
- **Nuclear Weapons:** NNSA Needs to Refine and More Effectively Manage Its New Approach for Assessing and Certifying Nuclear Weapons, GAO-06-261, Feb. 3, 2006
- **Defense Management:** Fully Developed Management Framework Needed to Guide Air Force Future Total Force Efforts, GAO-06-232, Jan. 31, 2006
- **Defense Acquisitions:** DoD Management Approach and Processes Not Well-Suited to Support Development of Global Information Grid, GAO-06-211, January 30, 2006
- **Defense Trade Data,** GAO-06-319R, Jan. 27, 2006
- **DoD Business Transformation:** Defense Travel System Continues to Face Implementation Challenges, GAO-06-18, January 18, 2006

### Science, Space, and Technology

- **Space Acquisitions:** Improvements Needed in Space Systems Acquisitions and Keys to Achieving Them, GAO-06-626T, April 6, 2006
- **Polar-Orbiting Operational Environmental Satellites:** Cost Increases Trigger Review and Place Program's Direction on Hold, GAO-06-573T, March 30, 2006
- **Space Acquisitions:** DoD Needs a Department-wide Strategy for Pursuing Low-Cost, Responsive Tactical Space Capabilities, GAO-06-449, March 14, 2006



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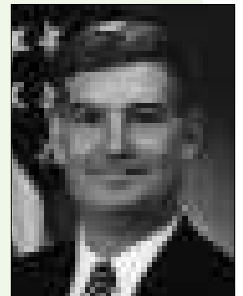


ACQUISITION,  
TECHNOLOGY AND  
LOGISTICS

### THE UNDER SECRETARY OF DEFENSE

3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3010

FEB 17 2006



#### MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS (ATTN: ACQUISITION EXECUTIVES)

SUBJECT: Government Accountability Office (GAO) High Risk Area: Contract Management

The Department of Defense (DoD) continues to be committed to aggressively addressing the High Risk Areas identified by the Government Accountability Office (GAO) in GAO-05-207, dated February 2005. I actively monitor our activities on each High Risk Area goal and milestone under my purview and provide the Deputy Secretary with periodic updates on our progress.

In the High Risk Area of DoD Contract Management, my staff has initiated periodic meetings with representatives of the Government Accountability Office and the Office of Management and Budget to ensure that our efforts remain closely aligned.

We recently updated the Department's Improvement Plan dated August 12, 2005, to incorporate implementation of section 812, Management Structure for Procurement of Contract Services, of the National Defense Authorization Act for Fiscal Year 2006, Public Law 109-163. We anticipate updating the Improvement Plan periodically to keep it current, and plan to do so in coordination with your representatives. Our goal is to implement a DoD-wide strategy for effective contract management. The updated Improvement Plan is enclosed, along with the most recent status update, to facilitate your support of these efforts.

I appreciate your support and oversight of these efforts as it is critical for success. Many of these issues will require you to effectively implement policies addressed in the plan.

Kenneth J. Krieg

Attachments:  
As stated

**Editor's note:** View the attachments to this memorandum at <[http://www.acq.osd.mil/dpap/policy/policyvault/policy\\_dept.jsp](http://www.acq.osd.mil/dpap/policy/policyvault/policy_dept.jsp)>.



## Policy & Legislation

**THE UNDER SECRETARY OF DEFENSE**  
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WASHINGTON, DC 20301-3010



FEB 17 2006

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Authority for Use of Other Transactions for Prototype Projects

Section 845(a)(2) of the National Defense Authorization Act for Fiscal Year 1994, Public Law 103-160 (1993), as amended by section 823 of the National Defense Authorization Act for Fiscal Year 2006, Public Law 109-163 (enacted January 6, 2006), imposes a written determination requirement for authority to use other transactions for prototype projects estimated to exceed \$20,000,000. The written determination requirement for authority to use other transactions applies to prototype projects that are directly related to weapons or weapon systems that are proposed to be developed or acquired by the Department of Defense. Section 823 also includes a requirement to notify the Congressional defense committees at least thirty days prior to signing an other transaction agreement for a prototype project that is expected to exceed \$100,000,000. The written determination approval levels for the use of other transactions for prototype projects set forth in section 823 are as follows:

Estimated Cost	Approval Authority for Military Departments	Approval Authority for Defense Agencies
Over \$20,000,000 up to \$100,000,000	Senior Procurement Executives	USD(AT&L)
Over \$100,000,000	USD(AT&L)	USD(AT&L)

Requests for determinations to permit the use of another transaction for a prototype project requiring my approval under section 845(a)(2) (as amended), shall be submitted to the Director, Defense Procurement and Acquisition Policy (DPAP), 3060 Defense Pentagon, Room 3E1044, Washington, D.C. 20301-3060. My staff point of contact for this subject is Ms. Susan Pollack, Defense Procurement and Acquisition Policy, 703-697-8336, [susan.pollack@osd.mil](mailto:susan.pollack@osd.mil).



Kenneth J. Krieg

**Editor's note:** View the distribution for this memorandum at [http://www.acq.osd.mil/dpap/policy/policyvault/policy\\_dept.jsp](http://www.acq.osd.mil/dpap/policy/policyvault/policy_dept.jsp).







# Policy & Legislation

**THE UNDER SECRETARY OF DEFENSE**  
3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3010



ACQUISITION,  
TECHNOLOGY AND  
LOGISTICS

FEB 17 2006

## MEMORANDUM FOR CHAIRMAN, DEFENSE SCIENCE BOARD

**SUBJECT:** Terms of Reference—Defense Science Board Task Force on Defense Industrial Structure for Transformation

You are requested to form a Defense Science Board (DSB) Task Force on Defense Industrial Structure for Transformation to describe the defense industry required to cope with the international security environment in the 21st Century.

The Department of Defense (DoD) adaptation to the changing security environment may have a profound effect on the industrial base that serves the Department. The shift to network-enabled operations may diminish requirements for force structure and associated platforms. Product development rather than the production cycle may dominate industry costs, profitability, and manufacturing capacity. Diminished platform requirements create cost, programmatic, and investment incentives for consolidation well below Tier 1 vendors.

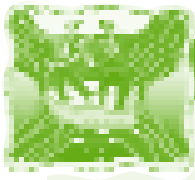
Previous DSB efforts examined vertical integration issues in early 1997 and found that major defense firms had increased vertical integration in some product areas, and noted that such vertical integration was not posing systemic problems at that time. In addition, it examined globalization issues in 1999 to identify both the beneficial and the negative consequences of globalization. Since then, the Department and industry have both undergone significant transformation. Vertical integration continues to be a matter of interest. Some firms and industry observers allege that vertically integrated prime contractors favor in-house capabilities over better external solutions. DoD antitrust evaluations of proposed business combinations increasingly identify vertical capabilities as concerns to be investigated. Interconnected, networked families of systems are leading to fewer but larger prime contracts where responsibilities for ensuring competition for key and innovative elements are delegated to the prime contractor. The Department generally mitigates risks to its interests by increasing emphasis on DoD oversight of make-buy policies and decisions; and imposing behavioral remedies to preclude a newly combined firm from unfairly leveraging new internal capabilities to the detriment of its competitors.

Furthermore, the financial viability of the defense sector may be at risk. As defense expenditures “top out” (and begin to decline in real terms), the underlying financial viability of the defense sector for the longer term may be negatively impacted.

The Task Force should characterize the degree of change likely and/or desirable in industry due to the changing nature of DoD and the industrial base. The Task Force should examine the effectiveness of existing mitigation measures and develop recommendations, if necessary, designed to ensure adequate future competition and innovation throughout all tiers of the defense industrial base.

While investigating these concerns, the Task Force will want to address the following questions:

- a. What are the implications for the industrial base of increased DoD acquisition of services? Will the existing (or perhaps more consolidated) defense industrial structure evolve into a predominately service orientation? What are the implications of the emerging practice of major defense firms acquiring independent service and support providers? To what degree should the globalization of product and service suppliers be enabled by policy and regulation?



## Policy & Legislation

b. If the trends in globalization and service continue, what are the policies and practices which allow DoD to benefit most from the future industrial base?

c. What have been the trends since the previous DSB study on Vertical Integration? Are critical component capabilities generally made available to competitors or not? After acquiring new companies, are critical or innovative capabilities effectively supplied to the Department?

d. What the implications for the financial viability of the defense industrial base as the sector adapts to changing DoD needs for defense-related products and services. If the defense sector further consolidates as it absorbs excess capacity and retools to meet evolving defense needs (e.g., services-centric rather than platform-centric), will DoD acquisition practices and consolidation policy be effective in ensuring that the defense sector will have the financial strength to support the needs of the industrial dimension of transformation?

e. How does vertical integration affect competition among prime contractors? How does vertical integration affect competition among sub-tier suppliers? How does vertical integration affect the market opportunities of a merchant supplier of a critical capability? How does vertical integration affect innovation?

f. For both merger and acquisition antitrust reviews and subcontractor source selection decisions, are the current mitigation measures used by the Department effective in reducing the risks of anticompetitive behavior and vertically integrated market structures? How effective are these measures in enabling the Department to acquire a solution with the best value?

g. What measures or policies might the Department and industry adopt or modify to better reduce the risks of anticompetitive behavior? What measure or policies might the Department and industry adopt or modify to better ensure the availability of solutions with the best value to the Department?

The Study will be sponsored by me as the Under Secretary of Defense (Acquisition, Technology and Logistics) and the Acting Deputy Under Secretary of Defense (Industrial Policy). Dr. Jacques Gansler will serve as the Task Force chairman. Mr. David Chu, ODUSD(IP), will serve as Executive Secretary and Major Charles Lominac, USAF, will serve as the Defense Science Board Secretariat representative.

The Task Force will operate in accordance with the provisions of P.L. 92-463, the "Federal Advisory Committee Act," and DoD Directive 5105.4, the "DoD Federal Advisory Committee Management Program." It is not anticipated that this Task Force will need to go into any "particular matters" within the meaning of Section 208 of title 18, United States Code, nor will it cause any member to be placed in the position of action as a procurement official.



Kenneth J. Krieg





## Policy & Legislation



**THE UNDER SECRETARY OF DEFENSE**  
3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3010

MAR 13 2006

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS

(ATTN: ACQUISITION EXECUTIVES)  
COMMANDER, UNITED STATES SPECIAL OPERATIONS COMMAND  
(ATTN: ACQUISITION EXECUTIVE)  
COMMANDER, UNITED STATES TRANSPORTATION COMMAND  
(ATTN: ACQUISITION EXECUTIVE)  
DIRECTORS OF THE DEFENSE AGENCIES  
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: Acquisition System Management

As a result of his recent review of the management of the KC-767-A Tanker Program, the DoD Inspector General made several broader observations regarding our overall acquisition control system and the procedures the Department employs to evaluate proposed acquisition approaches, including leasing. This letter is intended to clarify Department policy on both points.

The acquisition of major systems is governed by a substantial body of policy captured in OMB circulars, the Federal Acquisition Regulation, and the DoD 5000 acquisition policies. These policies serve as a management control system intended to ensure that needed capabilities are provided while addressing risk and satisfying all other applicable federal government acquisition requirements. These policies also facilitate program success by structured consideration of a broad spectrum of issues that might endanger that success.

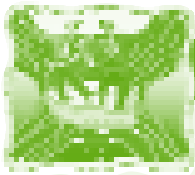
Many of these policies are inherently flexible to provide decision makers with the opportunity to tailor policy to the unique circumstances of each program. However, the opportunity to tailor and streamline must not be taken without thoughtful consideration of the issues our policies are designed to address. Flexibility and discipline are not mutually exclusive objectives.

We must also ensure we make the best use of the analytical tools available. DoD acquires capability through various means; however, use of an alternative approach such as leasing does not alter the requirement to review a program as rigorously as any other program of comparable size and complexity. The approach employed should be consistent with the requirement, and carefully evaluated in the context of a formal analysis of alternatives. In short, quantitative analysis must play a key role in our determination of the most cost-effective solution. I plan to review the results of those analyses at designated program decision points and strongly suggest that other decision authorities do likewise.

I believe that this flexible but disciplined approach will enhance our ability to make well informed decisions, improve our responsiveness to the warfighter, and ensure confidence in our acquisition system.



Kenneth J. Krieg



## Policy & Legislation



ACQUISITION,  
TECHNOLOGY AND  
LOGISTICS

**OFFICE OF THE UNDER SECRETARY OF DEFENSE**  
3000 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3000

MAR 29 2006



MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
ATTN: ACQUISITION EXECUTIVES  
DIRECTORS OF THE DEFENSE AGENCIES

SUBJECT: Award Fee Contracts (FAR 16, DFARS 215, DFARS 216)

Award fee contracts must be structured in ways that will focus the government's and contractor's efforts on meeting or exceeding cost, schedule, and performance requirements. The ability to earn award fees needs to be directly linked to achieving desired program outcomes. In December 2005, the Government Accountability Office (GAO) issued a report entitled "DEFENSE ACQUISITIONS: DoD Has Paid Billions in Award and Incentive Fees Regardless of Acquisition Outcomes" <<http://www.gao.gov/new.items/d0666.pdf>>, which made a number of recommendations on how to improve the use of award fees.

In the DoD response dated December 12, 2005, the Department generally concurred with the recommendations in the report and agreed to issue a policy memo by March 31, 2006, to (1) address desired outcomes and the role the award fee should play in the overall acquisition strategy; (2) remind the acquisition workforce to follow existing policies; (3) provide guidance to the acquisition workforce on "rollover"; and (4) develop a communication plan to share proven incentive strategies across the entire DoD acquisition workforce. These actions correspond to Recommendations 1, 2, 4 and 7, respectively, in the GAO report. Separately, the Department will respond to Recommendations 3, 5 and 6 of the report at a later time. While award fee contracts are intended to be flexible, this memorandum provides additional guidance on the proper use of award fees.

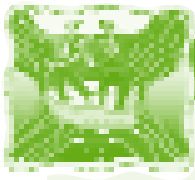
### Link Award Fees to Desired Outcomes (GAO Recommendation 1)

While award fee contracts are used when it is neither feasible nor effective to devise predetermined objective performance targets, it is imperative that award fees be tied to identifiable interim outcomes, discrete events or milestones, as much as possible. Examples of such interim milestones include timely completion of preliminary design review, critical design review, and successful system demonstration. In situations where there may be no identifiable milestone for a year or more, consideration should be given to apportioning some of the award fee pool for a predetermined interim period of time based on assessing progress toward milestones. In any case, award fee provisions must clearly explain how a contractor's performance will be evaluated.

### Award Fees Must Be Commensurate with Contractor Performance (GAO Recommendation 2)

While award fee arrangements should be structured to motivate excellent contractor performance, award fees must be commensurate with contractor performance over a range from satisfactory to excellent performance. Clearly, satisfactory performance should earn considerably less than excellent performance, otherwise the motivation to achieve excellence is negated. However, because base fees are typically limited to no more than three percent of target cost (DFARS 216.405-2), it is appropriate to award a portion of the award fee pool for satisfactory performance to ensure that contractors receive an adequate fee on our contracts. Performance that is less than satisfactory is not entitled to any award fee.





## Policy & Legislation

### Rollover of Award Fees (GAO Recommendation 4)

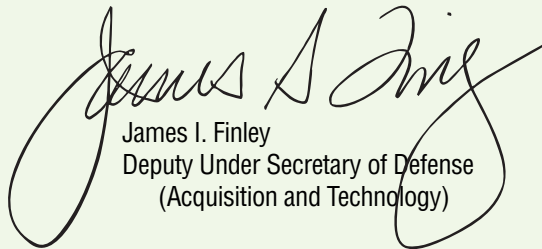
An element of many award fee plans is the ability to “roll over” unearned award fee money from one period to another. The following limitations on the use of “rollover” are established:

- Use of a “rollover” provision should be the exception rather than the rule.
- Use of an award fee rollover provision is a business decision and should be addressed in the acquisition strategy, including the rationale as to why a rollover provision is appropriate.
- If “rollover” is used, the contractor may only earn a portion of the fee that was rolled over, even for subsequent excellent performance. Factors to consider in determining how much to reduce the available rollover fee include how close the contractor came to meeting the scheduled milestone in terms of cost, schedule, and performance. For example, the reduction in rollover fees for missing a milestone by a year should be significantly greater than for missing a milestone by 30 days.
- If the Fee Determining Official approves the use of “rollover,” the official contract file must be documented accordingly and the contractor must be notified.

### Communication Plan (GAO Recommendation 7)

In order to facilitate discussion and to share proven incentive strategies across the entire acquisition workforce, the Department has established the “Award and Incentive Fees” Community of Practice (CoP) under the leadership of the Defense Acquisition University (DAU). The CoP will serve as the repository for all related materials including policy information, related training courses, examples of good award fee arrangements, and other supporting resources related to this policy memorandum. The CoP is available on the DAU Acquisition Community Connection at <https://acc.dau.mil/awardandincentivefees>.

This policy memorandum is effective immediately. The DFARS and/or its PGI supplement will be revised to reflect the policy contents of this memorandum. Please direct any questions to Michael Canales at 703-695-8571 or e-mail [Michael.Canales@osd.mil](mailto:Michael.Canales@osd.mil).



James I. Finley  
Deputy Under Secretary of Defense  
(Acquisition and Technology)



# Policy & Legislation



DEPARTMENT OF DEFENSE  
6000 DEFENSE PENTAGON  
WASHINGTON, DC 20301-6000

DEC 22 2005

CHIEF INFORMATION OFFICER

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
ATTN: SENIOR ACQUISITION EXECUTIVES  
CHIEF INFORMATION OFFICERS  
DIRECTORS OF DEFENSE AGENCIES

SUBJECT: Department of Defense (DoD) Support for the SmartBUY Initiative

SmartBUY is a government-wide enterprise software initiative led by OMB to streamline the acquisition process and provide best priced, standards-compliant commercial software. SmartBUY does not mandate the use of a particular brand; rather, it mandates the use of the cost-effective common vehicle when an agency decides to purchase the software of a designated brand. GSA manages the SmartBUY initiative and leads the interagency team in negotiating government-wide enterprise agreements for software.

DoD implements SmartBUY through the DoD Enterprise Software Initiative (DoD ESI) Team, which works closely with SmartBUY leaders to provide DoD commercial software requirements, to manage selected SmartBUY agreements and to assist DoD buyers with use of all SmartBUY agreements. Information about current SmartBUY agreements (including ordering and waiver procedures) is located at the DoD ESI website: <http://www.esi.mil>.

Use of SmartBUY agreements is mandatory, where requirements evaluation has led to the designated brand name software product or service. Your agency is expected to support the SmartBUY initiative through the following actions:

- Acquire commercial software from one of the existing ESI or SmartBUY agreements listed on the left side of the DoD ESI website, **Designated Agreements** (<http://www.esi.mil>). Follow the procedures directed by DFARS subpart 208.74 — **Enterprise Software Agreements**.
- As per DoDI 5000.2, para E4.2.7 — **Operation of the Defense Acquisition System**, always consult with the ESI Team prior to negotiating directly with software publishers or resellers for large requirements, even if there is no ESI or SmartBUY agreement yet in place for the commercial software in question.
- Ensure that new large commercial software contracts and licensing arrangements, regardless of the acquisition method, are flexible enough to permit migration to a SmartBUY vehicle within twelve months.

The DoD Smart BUY points of contact are: Rex Bolton, OASD (NII)/DoD CIO, 703-602-0980 ext 171, [rex.bolton@osd.mil](mailto:rex.bolton@osd.mil); Floyd Groce, DON CIO, 703-607-5658, [floyd.groce@navy.mil](mailto:floyd.groce@navy.mil); and Jim Clausen, OASD (NII)/DoD CIO, 703-602-0980 ext 169, [james.clausen@osd.mil](mailto:james.clausen@osd.mil). The AT&L point of contact is Mark Krzysko, OUSD (AT&L), 703-614-3883 ext 121, [mark.krzysko@osd.mil](mailto:mark.krzysko@osd.mil).

  
Domenic C. Cipicchio  
Acting Director, Defense Procurement  
and Acquisition Policy

  
Priscilla E. Guthrie  
Deputy Chief Information Officer



## Policy & Legislation

**OFFICE OF THE UNDER SECRETARY OF DEFENSE**  
3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3000



ACQUISITION,  
TECHNOLOGY AND  
LOGISTICS

FEB 01 2006



MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Performance-Based Service Acquisition (PBSA)

The purpose of this memorandum is to ensure that Military Departments and Defense Agencies are aware of current DoD requirements relating to PBSA. DoD remains committed to increasing the appropriate use of PBSA. On September 7, 2004, the Office of Federal Procurement Policy (OPFF) issued a memorandum, Attachment (1), implementing PBSA recommendations developed by an interagency task force, including target goals for PBSA use; a list of service areas excluded from the assessment of PBSA goal achievement; and guidance for supplemental reporting. DoD has made significant progress increasing PBSA use. In Fiscal Year 2004, more than 40% of applicable service contracts were performance-based. Therefore, DoD has continued to work toward its existing goal of 50% of eligible service actions over \$25,000 (measured in dollars awarded). Please note that actions may be coded as performance-based if more than 50% of the requirement, measured in dollars, is performance-based.

Attachment (2) provides a current list of services exempted from the requirement to use performance-based contracting methods and a list of service areas excluded from the annual assessment of PBSA goal achievement. Military Departments and Defense Agencies that want actions in the excluded service areas to be included in the annual assessment of PBSA should contact my office.

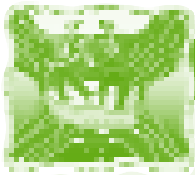
DoD is committed to increasing the quality of PBSA actions. On August 19, 2003, the USD(AT&L) issued a memorandum, Attachment (3), requiring that, by the end of Fiscal Year 2005, personnel involved in preparation of performance-based statements of work must complete PBSA training. To address this requirement, Defense Acquisition University continuous learning module, CLC 013, Performance-Based services Acquisition, is available at <https://learn.dau.mil/html/clc/Register.jsp>.

Fiscal Year 2005 PBSA reports, your point of contact information, and a report of PBSA training for personnel involved in preparing or approving performance-based statements of work are due to my office by February 28, 2006. My point of contact is Ms. Linda Neilson, who can be reached at (703) 697-8334 or via email at [linda.neilson@osd.mil](mailto:linda.neilson@osd.mil).

  
Domenic C. Cipicchio  
Acting Director, Defense Procurement  
and Acquisition Policy

Attachments:  
As stated

**Editor's note:** View the attachments to this memorandum at [http://www.acq.osd.mil/dpap/policy/policyvault/policy\\_dept.jsp](http://www.acq.osd.mil/dpap/policy/policyvault/policy_dept.jsp).



# Policy & Legislation



ACQUISITION,  
TECHNOLOGY AND  
LOGISTICS

**OFFICE OF THE UNDER SECRETARY OF DEFENSE**  
3000 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3000

FEB 08 2006

MEMORANDUM FOR DIRECTORS OF THE DEFENSE AGENCIES  
DEPUTY ASSISTANT SECRETARY OF THE ARMY  
(POLICY AND PROCUREMENT), ASA(ALT)  
DEPUTY ASSISTANT SECRETARY OF THE NAVY  
(ACQUISITION MANAGEMENT), ASN(RDA)  
DEPUTY ASSISTANT SECRETARY OF THE AIR FORCE  
(CONTRACTING), SAF/AQC  
EXECUTIVE DIRECTOR, LOGISTICS POLICY AND  
ACQUISITION MANAGEMENT (DLA)

SUBJECT: Class Deviation-Suspension of the Price Evaluation Adjustment for  
Small Disadvantaged Businesses

Effective 30 days after the date of this memorandum, Department of Defense (DoD) contracting activities shall continue to suspend the use of the price evaluation adjustment for small disadvantaged businesses (SDBs) in DoD procurement, as prescribed in the Federal Acquisition Regulation (FAR) subpart 19.11 and Defense Federal Acquisition Regulation Supplement (DFARS) subpart 219.11. The suspension is in effect for a one-year period 30 days after the date of this deviation and applies to all solicitations issued during this time period.

Subsection 2323(e) of title 10, United States Code (U.S.C.), as amended by section 801 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 and section 816 of the Bob Stump National Defense Authorization Act for Fiscal Year 2003, requires DoD to suspend the regulation implementing the authority to enter into a contract for a price exceeding fair market cost if the Secretary determines at the beginning of the Fiscal Year that DoD achieved the five percent goal established in 10 U.S.C. 2323(a) in the most recent fiscal year for which data are available. Based on the most recent data for Fiscal Year 2005, the determination was made that DoD exceeded the five percent goal established in 10 U.S.C. 2323(a) for contract awards to SDBs. Accordingly, use of the price evaluation adjustment prescribed in FAR 19.11 and DFARS 219.11 is suspended for DoD.

My staff point of contact for this deviation is Ms. Susan Pollack at (703) 697-8336 or [susan.pollack@osd.mil](mailto:susan.pollack@osd.mil).

  
Domenic C. Cipicchio  
Acting Director, Defense Procurement  
and Acquisition Policy







## Conferences, Workshops & Symposia

### INCOSE 2006 INTERNATIONAL SYMPOSIUM

**M**ark your 2006 calendars and allocate your budgets so you can be sure to join systems engineers from around the world at the Sixteenth Annual International Council on Systems Engineering (INCOSE) International Symposium, July 9-13, 2006, in Orlando, Fla. This year's theme is *Systems Engineering: Shining Light on the Tough Issues*. Register now at <http://www.incose.org/symp2006/>.

### 2ND ANNUAL SYSTEM OF SYSTEMS ENGINEERING CONFERENCE

**T**he 2nd Annual System of Systems Engineering Conference will be held July 25-26, 2006, at the Defense Acquisition University, Fort Belvoir, Va. This year's theme will be *System of Systems: Developing, Managing, and Operating*. This conference seeks to create an interactive forum to discuss the implication of System of Systems (SoS) in today's environment. Participants will discuss and exchange ideas focused in four topic areas:

- Perspectives on SoS approaches, methods, processes, and practices
- Application examples of developing, managing, and operating an SoS
- Success stories and critical considerations based on experiences
- SoS measurement and analysis, measures of performance.

To register for the conference or submit an abstract, please visit <http://www.sosece.org> or contact Gina Hudak, event coordinator, at 814-248-7692 or [gina.hudak@sosece.org](mailto:gina.hudak@sosece.org).

### DOD DIMINISHING MANUFACTURING SOURCES AND MATERIAL SHORTAGES CONFERENCE

**T**he DoD Diminishing Manufacturing Sources and Material Shortages (DMSMS) Conference will be held July 10-13, 2006, at the Charlotte Convention Center in Charlotte, N.C. The conference will emphasize DMSMS and will be a follow on to the DMSMS meetings.

Register now at <http://www.ndia.org/Template.cfm?Section=6640&Template=/ContentManagement/ContentDisplay.cfm&ContentID=11464>.

### 44TH ANNUAL AEROSPACE AND DEFENSE CONTRACTING CONFERENCE

**T**he 44th Annual Aerospace and Defense Contracting Conference will be held July 27-28, 2006, at the Hyatt Regency Orange County, in Garden Grove, Calif. The theme of this year's event will be *Getting the Work Done: The Government-Industry Team in Transition*. Ken Dahlberg, the Chief Executive Officer of Science Applications International Corporation (SAIC) is the confirmed keynote speaker. Other topics presented during the general session will be: "Appropriate Roles of Government and Contractors"; "Business Transformation"; and "The Government-Industry Workforce: Do We Have Enough to Get the Job Done?" Register for the conference at <http://www.ncmahq.org/meetings/ADC06/default.asp>.

### NINTH ANNUAL SPACE AND MISSILE DEFENSE CONFERENCE AND EXHIBITION

**T**he Ninth Annual Space and Missile Defense Conference and Exhibition (SMDC 2006) will be held Aug. 14-17, 2006, at the Von Braun Center in Huntsville, Ala. The conference and exhibition are sponsored by the National Defense Industrial Association-Tennessee Valley Chapter, the Army Space and Missile Defense Association, and the Air Defense Artillery Association-Huntsville Chapter. The theme selected for 2006 is *Global Missions ... Meeting the Challenge*.

Special features of the 2006 conference include presentations from many internationally recognized experts in the areas of global ballistic missile defense system development and operation; and the very successful 25,000-square-foot Small Business Innovative Research exhibition pavilion. This year's conference will again provide a unique opportunity to interface with the people and businesses developing some of the leading-edge technologies that will carry the nation's missile defense into the future. Register at <http://www.smdconf.org/main.php?smdconf=1>.

### 2006 ARMY ACQUISITION, LOGISTICS AND TECHNOLOGY SENIOR LEADERS CONFERENCE

**T**he 2006 Army Acquisition, Logistics and Technology Senior Leaders Conference will be held Aug. 14-17, 2006, in Norfolk, Va. The theme of



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this year's event will be: *One Force, One Vision, One Network*.

More information on the 2006 conference will be posted soon on the Army Acquisition Support Center Web site at <http://asc.army.mil/events/conferences/2006/slc/default.cfm>. If you have questions regarding the conference, contact Betisa Brown, (703) 805-2441, DSN 655-2441, or e-mail [betisa.brown@us.army.mil](mailto:betisa.brown@us.army.mil).

### INTERNATIONAL SOCIETY OF LOGISTICS (SOLE) CONFERENCE 2006

**T**he International Society of Logistics (SOLE) will hold its 41st Annual International Logistics Conference and Exhibition Aug. 15-17, 2006, at the Omni Mandalay at Los Colinas in Dallas (Irving), Texas. Registration information will be posted soon to the SOLE Web site at <http://www.sole.org/conference.asp>.

### DEPARTMENT OF DEFENSE UNIQUE IDENTIFICATION FORUM

**T**he Office of the Under Secretary of Defense for Acquisition, Technology & Logistics, Unique Identification (UID) Program Office, has sponsored two UID Forums in 2006—Seattle, Wash., and Providence, R.I.—to provide practical guidance to military program managers and DoD contractors. These UID Forums provide practical guidance and help educate military and civilian program managers and DoD contractors, particularly small- to mid-sized contractors and all acquisition program managers, on how to achieve successful UID implementation as required by the DoD Policy Memoranda and the issuance of the Final UID DFARS Rule (dated April 22, 2005).

The third forum will be held Sept. 12-13, 2006, in Dallas, Texas. Register at <https://www.registrationassistant.com/p/rg.asp?Event=4FFBF895C3992C504B2BE> for help with successful UID implementation as required by DoD policy (DFARS 211.274).

### INTERNATIONAL CONFERENCE ON ENTERPRISE TRANSFORMATION

**T**he International Conference on Enterprise Transformation will be held Oct. 17-18, 2006, at the Ronald Reagan Building and International Trade Center in Washington, D.C. Sponsored by the newly established Business Transformation Agency (BTA), the theme of the 2006 conference is *Defense Business Agility*. BTA will use this event as a conduit to inform both DoD and the defense contractor community of its priorities and plans for changing how DoD does business.

Register for the conference at [http://www.afei.org/brochure/7a01/?action=add&evt\\_key=d1e22fb4-6106-4bfb-94fd-562656f7d9f0&Paying=Fees](http://www.afei.org/brochure/7a01/?action=add&evt_key=d1e22fb4-6106-4bfb-94fd-562656f7d9f0&Paying=Fees).

### PMI GLOBAL CONGRESS 2006

**M**ark your calendars now for the Project Management Institute (PMI) Global Congress 2006, to be held Oct. 21-24, in Seattle, Wash. In an era of rapid change and global trends, successful project managers must be prepared to manage projects on time and within budget, regardless of project type, scope, or location, and despite newly emerging challenges.

The PMI Global Congress 2006 is the major project management educational and networking event for North America. This three-day event gives you the chance to gather the know-how and inspiration you need to consolidate and put into practice those key project management guidelines that make the difference in terms of project success. The Global Congress is also a meeting point for experts to discuss the most challenging project management trends. Watch the PMI Web site at <http://congresses.pmi.org> for future information on registration.

### ANNUAL SYSTEMS ENGINEERING CONFERENCE

**T**he 9th Annual Systems Engineering Conference will be held Oct. 23-27, 2006, at the Hyatt Islandia in San Diego, Calif. Registration information will be posted as soon as it becomes available at <http://register.ndia.org/interview/register.ndia?#May2006>.

### 2006 PEO/SYSCOM COMMANDERS' CONFERENCE

**T**he 2006 Program Executive Officer/Systems Command (PEO/SYSCOM) Commanders' Conference will be held at the Defense Acquisition University, Fort Belvoir, Va., Nov. 7-8, 2006. The PEO/SYSCOM conferences and workshops are a series of senior-level, invitation-only, non-attribution events that host approximately 400 Department of Defense and industry participants at each event. They provide senior leadership from the Department of Defense and Industry an excellent opportunity to meet and share their views and priorities. As the agenda is finalized, a Web site with information on the 2006 conference will be publicized.

### 25TH ARMY SCIENCE CONFERENCE

**T**he 25th Army Science Conference will be held Nov. 27-30, 2006, at the JW Marriott Orlando, Grande Lakes, in Orlando, Fla. The 25th ASC



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marks a significant milestone for the Army science and technology community, with this year's conference theme paying tribute to 50 years of promoting and showcasing the Army's S&T program: *Transformational Army Science and Technology—Charting the Next 50 Years of Science and Technology for the Soldier*. The Army Science Conference is an annual event sponsored by the assistant secretary of the Army (acquisition, logistics and technology). Watch for details of the conference and registration information at <http://www.asc2006.com/>.

### 2006 NCMA GOVERNMENT CONTRACT MANAGEMENT CONFERENCE

**T**he 2006 National Contract Management Association (NCMA) Government Contract Management Conference will be held Dec. 4-5, 2006, in Tysons Corner, Va. Watch The NCMA Web site for upcoming details of the conference and registration information <http://www.ncmahq.org/meetings/calendar.asp>.

### AMERICAN FORCES PRESS SERVICE (MARCH 11, 2006) LEADERS OUTLINE FORCE STRUCTURE CHANGES

*Sgt. Sara Wood, USA*

**T**ACOMA, Wash.—The U.S. faces a new enemy and must adopt a new operational approach that focuses on joint operations and irregular warfare, military leaders said here yesterday.

At the Pacific Northwest National Security Forum, leaders from the Army, Navy, Air Force, and Marine Corps explained changes being made in their forces to better meet the changing landscape of the 21st century battlefield.

All the leaders emphasized that the war on terrorism is essentially a conflict of ideas that cannot be solved with traditional operational concepts. To meet the irregular threat, each Service is changing in unique ways to become more effective.

Fundamental to the Army's transformation is the idea that a hybrid mix of forces is needed for the future, said Army Maj. Gen. David A. Fastabend, deputy director and chief of staff of the Army Capabilities Integration Center.

"The worst thing we could do right now is try to make a choice between light and heavy [forces] ... because the future is unpredictable," Fastabend said.

The Army is building a force with a mixture of brigade types to ensure there are no vulnerabilities the enemy can attack, Fastabend said. Heavy brigade combat teams, infantry brigade combat teams, Stryker brigade combat teams, and light brigades are available to be mixed together to best fight in whatever environment the Army finds itself in, he said.

The Army also is increasing its number of brigades and the mix of active-duty and reserve forces to help sustain the intense pace of deployments, Fastabend said. "We're going from the big war, big mobilization model to 'you're at war forever,' so everybody's on a cycle," he said.

The Air Force also is changing its structure to better address the global war on terror, said Air Force Maj. Gen. Ronald J. Bath, special assistant to the Air Force vice chief of staff.

The Air Force, like the Army, has to balance its reserve and National Guard forces with its active duty forces to ensure deployment cycles are balanced and resources are being used properly, Bath said.

The Defense Department has been drawing down its air forces since 1990 and by 2024 will have reduced them by 42 percent, Bath said. The force that's left, he continued, will be completely embedded in a single, more advanced weapons system.

"We're trying to get smaller while we have more capability," he said. "The capability will increase."

The Air Force is more than deployable forces, Bath said, pointing out the importance of strategic airlift, tankers, and missile and space wings. While balancing funds and priorities, these combat enablers will not be forgotten, he said.

"All of these make that stuff that goes forward combat-ready," he said.

The Navy has the expeditionary model of warfare ingrained in its culture, but it is far from perfect and is also looking at major changes in the future, said Navy Rear Adm. Peter H. Daly, commander of Carrier Strike Group 11.

More than ever, the Navy is recognizing the importance of seapower, Daly said. People tend to assume ships at sea will be unmolested by enemies, he said, but the



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amount Americans depend on the sea requires leaders to be more vigilant.

"The fact is, is that a huge proportion of U.S. trade—over 90 percent—travels by sea," he said. "[About] 2.2 billion people in this world live 100 kilometers from the shore. Fifty thousand tankers out there carry 60 percent of our oil, and if we had to live without it, we'd be having a very, very bad day."

Americans shouldn't have to worry about the maritime environment, and that's where the Navy comes in, Daly said. But the key to the Navy's success is cooperation and help from partners inside and outside the United States, he said.

"For the first time, we're seeing synergy with other nations that we've talked about having for 10 or 15 years," he said.

The international community is coming together to deal with maritime issues like piracy, illegal drugs, human smuggling, weapons of mass destruction, and environmental issues, Daly said. It's sometimes hard to match the capabilities of the U.S. Navy with other countries, but cooperation is important, so Navy leaders have been developing partnerships and trying to increase other nations' capabilities, he said.

The Navy also is shifting from doing mostly sea-based operations to other areas, Daly said. In the Central Command area of operations, 10,000 Navy personnel are on the ground, performing missions such as detainee operations, air ambulance support, provincial reconstruction teams, and intelligence operations, he said. The Navy also is expanding its ability to do expeditionary operations, such as river operations, and civil affairs, he said. The Marine Corps will be partnering with the Navy to provide an important joint capability to all the Services, said Marine Col. Timothy C. Hanifen, director of the Capability Development Directorate at Marine Corps Combat Development Command.

Sea-basing is a naval and national capability that will give the United States an option to enter an area when access to air bases or ports is not available, Hanifen said. A Marine pre-positioning force will join with an amphibious force to form a sea base from which personnel and equipment can be flown to an advance base, he said. This will be an important capability to make the force even more versatile to meet the changing threats of the 21st century, he said.

The Marine Corps is making other changes to better meet future threats, Hanifen said. Training for small unit leaders will be expanded to include calling in artillery and air support, going on long-range patrols, and making tactical decisions, he said. Cultural and language training is being given to Marines now, he said, and the Marine Corps is undergoing some force structure changes, such as the addition of Marine Special Operations Command and foreign military training units.

Hanifen emphasized that as the Marine Corps and other Services change, the most important thing for leaders to remember is that everyone has to work together to win in the war on terror. "We all have a joint perspective," he said. "We know that the nation fights and wins with joint forces."

### AMERICAN FORCES PRESS SERVICE (MARCH 12, 2006) **ARMY MUST CHANGE TO REMAIN RELEVANT, GENERAL SAYS**

*Sgt. Sara Wood, USA*

**T**ACOMA, Wash.—The U.S. Army is the greatest it's ever been, but to remain effective for the future, it must make changes, a top Army commander said here yesterday.

"As good as the Army is today, we will need a better one tomorrow," Army Gen. Dan K. McNeill, commander of U.S. Army Forces Command, said at the Pacific Northwest National Security Forum. "We will need it because the strategic landscape in which we operate is changing; it is becoming considerably more complex."

The United States no longer faces enemies with traditional armies as it did in the Cold War, but a network of insurgents who employ irregular tactics and have no regard for human dignity, McNeill said. The Army, along with the other Services, is changing to more effectively fight these enemies and to be prepared for unforeseeable future threats, he said. As the Army undergoes transformation, leaders keep in mind four key ideas that bring the force together, McNeill said.

First, Army leadership remains committed to producing units that are trained and ready for the challenges they will face, he said. To do this, the Army has overcome years of under-funding and has changed the way it does business to ensure resources will always be available, he said.





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Second, the Army recognizes that intellectual change precedes physical change, so the Army is changing the way it trains leaders to make them more versatile, McNeill said. The Army needs versatile, adaptive leaders that are able to operate in changing environments and make tough decisions, he said. To that end, the Army is undertaking a major review of how it trains, educates, and assigns leaders, he said.

The third idea is that soldiers' effectiveness depends on a national commitment to recruit, train, and support them properly, McNeill said. This commitment must be underwritten by consistent investment in Army equipment and programs, he said.

Lastly, as the Army transforms, leaders must remember where they started, McNeill said. At the beginning of the war in Iraq, many units were under-equipped or ill-prepared for deployments, especially Reserve and National Guard units, he said. To fill these slots, the Army pulled people from other units, which created a domino effect in readiness, he said. Army leaders learned from these mistakes and have changed the way they do business so that will not happen again, he said.

The Army is on the right road of transformation, but it still has progress to make and will need continued financial support in key areas, McNeill said. Recruiting and retention efforts, the Future Combat Systems program, the Army Force Generation Model, and Army installations are all things that will need funding to ensure the Army remains able to perform its mission, he said.

"We have to change to maintain this great Army as a relevant force tomorrow," he said. "To remain the preeminent land power on earth, it is clear to all of us who have leadership responsibilities that we have to change."

### AMERICAN FORCES PRESS SERVICE (APRIL 4, 2006) **MILITARY, INDUSTRY MUST WORK TOGETHER TO WIN LONG WAR, GENERAL SAYS**

Steven Donald Smith

**H**AMPTON, Va.—The U.S. military and private sector defense industry must work together to win the Long War against terrorism, the general who serves as commander of U.S. Joint Forces



Gen. Lance L.  
Smith, USAF

Command and as NATO's supreme allied commander for transformation said here today.

"The things we're doing with you in cooperative research and development agreements are indicative of the importance we place on this relationship, so that we can build the kinds of equipment our troops need to fight and win the war we're fighting," Air Force Gen. Lance L. Smith told a defense industry audience at the 2006 JFCOM Industry Symposium.

The symposium is co-hosted by U.S. Joint Forces Command, which leads the Defense Department's effort to transform the military to meet challenges associated with the Information Age, and the National Defense Industrial Association. This is the sixth year JFCOM and NDIA have worked together on this type of event.

This year's theme, *Building Knowledge for the Warfighter*, focused on enabling technologies to support joint, coalition, and interagency operations; global perspective; knowledge fusion across multiple and critical domains; coalition battlespace awareness; modeling and simulation; and training. The purpose of the symposium is to provide a legal and ethical forum for the interchange of ideas between the military and industry to resolve industrial problems of joint concern, military officials said.

Smith said JFCOM is looking at ways to better deal with conflicts across a wide spectrum, "from humanitarian relief all the way through major combat operations," he said.

He said fielding better joint and integrated communications systems is one of his priorities and that merging operational and intelligence capabilities is critical to defeating terrorism. "One of the clear lessons that has come out of Iraq and Afghanistan is the separation of operations and intelligence has not worked in the kind of war we're fighting," he said. "Merging operations and intel is one of the critical elements of being able to fight this Long War."

Smith said the term "Long War" does not mean the United States intends to stay in Iraq and Afghanistan indefinitely. "That's not what we're trying to say. What we're trying to say is that this fight is against extremists who are not going to go away just because Iraq and Afghanistan go away," he said. "They will simply move. Our goal is to posture to fight this war as long as it takes."



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The defense industry can help win the Long War by helping the military build information and communications systems that talk to each other, Smith said. "We need a command-and-control system that is interoperable," he said. "And we need a command-and-control system that allows us to operate inside the enemy's decision loop."

At one time there were more than 300 data systems in Iraq dealing with counter-improvised explosive device information, Smith said. "You cannot set up a search engine that can go and look into all those 300 databases in order to get a coherent picture to counter IEDs," he said.

He stressed that data systems must be born and developed with joint capability and that military configuration controls must be less constrictive. "We've had this discussion, and we will try to make sure that when the data standards come out that they will be broad enough and not be so restrictive that we can operate within them," he said.

In addition, three-dimensional modeling and simulation of cities and rural areas will help special operations forces prepare for missions, he said, urging industry to tackle this area.

"If we can do all those things, then we will certainly help our folks survive in this environment, and we will gradually over time take this fight away from the enemy, and we will win this battle," Smith concluded.

### ARMY NEWS SERVICE (APRIL 10, 2006) USAREUR STAFF GETS LOOK AT FUTURE OF ARMY BUSINESS

**H**EIDELBERG, Germany—Army leaders in U.S. Army, Europe, were introduced to the future of doing business during a Lean Six Sigma (LSS) overview April 7.

LSS is a significant part of the Army's business transformation initiative. It supports improvements across all major commands and functions, and its goals are to win the long war while sustaining the all-volunteer force, accelerate the future combat force strategy, and accelerate business transformation and process improvement.

"Everything the Army does must align with the strategic goals as defined by the Army leadership," said Joseph W. Albright, director for Enterprise Solutions for the Office of the Deputy Under Secretary of the Army for Business Transformation.

### Improving the way we do business

LSS is a synergy of two concepts that will be used to improve processes and transform business.

Lean is primarily concerned with eliminating waste and improving flow in business operations, according to Elizabeth Beatty, USAREUR G-8, Office of the Comptroller. Six Sigma is a method to reduce variance in the quality and speed of services and products.

The combined process encourages people to think critically about what they do and how they do it, Albright said.

### USAREUR plays key roll in LSS

Michael A. Kirby, deputy under secretary of the Army for business transformation, described LSS as a tool to help get the right people on the right problems, with the right metrics and the right leadership to bring problems to a successful conclusion.

"Lean Six Sigma is a proven business practice to solve complex problems, breaking these problems down into discrete processes and focusing on end results," Kirby said.

"We are employing this to make the Army more capable of generating the combat power the nation requires," Kirby added. "USAREUR is a key part of this roll-out."

The near-term targeted processes that LSS will address include: property management, contracting, civilian human resources, military construction, reimbursable repair funding, information technology portfolio management, personal security investigations, planning and mobilization, military recruiting, and medical capabilities.

### Leaders are committed to change through LSS

The LSS system is not new, said Beatty.

"It defines, measures, analyzes, improves, and controls any process yield by following a problem-solving approach using statistical tools," she explained. "Used together, they can result in significant cost avoidance and savings for any organization," she said.

"The methodologies have proven over the last 20 years that it is possible to achieve dramatic and positive results in cost, quality, and time by focusing on process improvement," Beatty said.



## Conferences, Workshops & Symposia

According to Albright, senior Army leadership is convinced of its worth and are hands-on involved and committed to change.

"We know the Army is effective—we win wars and get the job done," said Jack Van Den Beldt, USAREUR LSS deployment manager.

"Effective does not always mean efficient," Van Den Beldt said, "That is why we are introducing LSS, to become better stewards of taxpayer dollars."

As a practical example, Van Den Beldt said, 21st Theater Support Command is evaluating the Humvee reset line at the General Support Center, Europe, to improve efficiency.

"I think the entire force needs to look at this as an opportunity for achieving efficiency in business," said Army Lt. Col. Dave Fulton, USAREUR G-1, Office of Personnel. "It's going to require professional development to develop a culture of continuous improvement."

Lean was developed by Toyota based on efficiency theories of statistician Dr. W. Edwards Deming. Six Sigma was developed by Motorola to reduce variance in quality and speed, said Beatty.

For more information visit the Army Continuous Process Improvement Web site at <http://www.army.mil/aeioo/cpi/>.

### AMERICAN FORCES PRESS SERVICE (APRIL 17, 2006) DEFENSE SCIENCE BOARD TO STUDY INTERNET'S IMPACT ON MILITARY OPS

Donna Miles

**W**ASHINGTON—The Defense Science Board will conduct a summer study on a topic that would have been inconceivable when the Defense Department established the board 50 years ago this year: the military implications of Internet search engines, online journals, and blogs.

Kenneth Krieg, under secretary of defense for Acquisition, Technology and Logistics and a former Defense Science Board member himself, requested the study on "Information Management for Net-Centric Operations" to

help evaluate the implications of the information network boom. Krieg noted in a memo to the board the military's ever-increasing reliance on these networks and the way they increase the force's effectiveness. As information becomes more critical to military operations,

**"Googling" and "blogging" are making their way into military operations at all levels ... but the full implications of this revolution are as yet unknown, and we have no clear direction and defined doctrine.**

—Kenneth Krieg, USD(AT&L)

the military will need to ensure it has the information networks needed to meet future challenges, he wrote.

"Our increasing ability to leverage information and networking will be a critical enabling factor in developing better ways to work with others in the (U.S. government) and with both coalition and nontraditional partners as we, collectively, undertake the challenging missions of the 21st century," he wrote.

That capability will be critical in stabilization and reconstruction missions. Krieg called access to information and collaboration among those who play a role in these missions "the lifeblood of military and civil-military operations."

And as new users demand more information, they'll want better tools for getting it and ways to ensure its security and reliability. "'Googling' and 'blogging' are making their way into military operations at all levels," Krieg wrote. "But the full implications of this revolution are as yet unknown, and we have no clear direction and defined doctrine."

Scientific and technical experts on the Defense Science Board will explore those implications during the summer study. The group will assess DoD's strategy, scope, and progress toward achieving what Krieg called "a robust and adaptive net-centric DoD enterprise."

*The Defense Science Board was established in 1956 to serve as an independent advisory body to DoD on scientific and technical matters.*



## Acquisition & Logistics Excellence

### DEFENSE CONTRACT MANAGEMENT AGENCY (JAN. 4, 2006)

**D**uring an Acquisition, Technology and Logistics (AT&L) All Hands at the Pentagon on Jan. 4, 2006, Under Secretary of Defense (AT&L) Kenneth Krieg presented a Defense Acquisition Excellence Certificate of Achievement and Defense Certificates of Recognition for Acquisition Innovation to six Defense Contract Management Agency teams:

#### Defense Acquisition Excellence Certificate of Achievement

**Defense Contract Management Agency (DCMA) Enterprise/Northwest Florida Team.** The team provided highly responsive, innovative support to Special Operations Command and multiple other programs, by cutting process cycle times by approximately six months; and from 2001 to 2004, significantly contributed to cumulative cost avoidances to the government amounting to over \$45 million.

#### Defense Certificate of Recognition for Acquisition Innovation

**Defense Contract Management Agency (DCMA) Boeing-St. Louis Future Combat Systems Team.** The team provided exemplary performance in contract management support for the Department of the Army's Future Combat System, a massive procurement to meet emerging national security threats, including analyzing a \$6.4 billion contract addition.

**The Active Performance Management Pilot Implementation Team, Office of the Assistant Deputy Under Secretary of Defense for Transportation Policy.** The team leveraged and integrated best business practices with commercial off-the-shelf technology into DoD systems to enable faster delivery of materiel to the combatant commands, thereby achieving best value supply chain management.

**Ground-Based Midcourse Defense Technology Assessment and Planning Team, DoD Missile Defense Agency.** The team found new ways to transition innovative technology from the garages of small businesses into the Ballistic Missile Defense System by leveraging Small Business Innovation Research and other funding to avoid more costly solutions, and expedited insertion of state-of-the-art technology into our nation's defense.

**Office of the Under Secretary of Defense (Acquisition, Technology and Logistics), Defense Systems, Systems Engineering Directorate.** The directorate made unprecedented progress toward meeting the 2004 USD(AT&L) goal for programs to conduct "Systems Integration and Engineering for Mission Success" and drove technical discipline back into acquisition programs to reduce acquisition program risk.

**Radiation Hardened Foundry Modernization Activity, BAE Systems Team, Defense Threat Reduction Agency.** The team provided exemplary performance in the development of Radiation Hardened Microelectronics Technology capabilities, uniquely needed by the Department of Defense for weapons and space systems that must operate effectively in severe radiation environments, completing the project significantly under cost and schedule with cumulative savings to date exceeding \$5 million.

### DEPARTMENT OF DEFENSE NEWS RELEASE (FEB. 22, 2006)

#### UNIVERSITIES SELECTED FOR RESEARCH FUNDING

**T**he Department of Defense announced today plans to award 30 basic research grants to 20 universities totaling about \$13.5 million in fiscal year 2006 and about \$30.2 million per year starting in fiscal year 2007 for a total of \$150.6 million over five years.

These academic institutions will receive the grants to conduct multidisciplinary research in 26 topic areas of basic science and engineering under the DoD Multidisciplinary University Research Initiative (MURI) program. All awards are subject to the successful completion of negotiations between DoD research offices and the academic institutions.

The MURI program is designed to address large multidisciplinary topic areas representing exceptional opportunities for future DoD applications and technology options. The awards will provide long-term support for research, graduate students, and laboratory instrumentation development that supports specific science and engineering research themes vital to national defense.

The average award will be \$1 million per year over a three-year period. Two additional years of funding will be possible as options to bring the total award to five years. Out-year funding is subject to satisfactory progress





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in the research and the availability of funding appropriations.

This announcement is the result of a rigorous competition over many months under the MURI program. In response to the MURI broad agency announcement solicitation, many letters of intent to submit proposals were received leading to 143 full proposals. After a thorough evaluation by DoD technical expert teams, 30 of these proposals were selected for funding.

The list of projects selected for fiscal year 2006 funding may be found on the Web at <http://www.defense.mil/news/Feb2006/d20060222muri.pdf>.

### AIR FORCE MATERIEL COMMAND NEWS SERVICE (FEB. 27, 2006)

#### **GUERTS NAMED BEST AIR FORCE MILITARY SYSTEM PROGRAM DIRECTOR**

*Staff Sgt. Ryan Hansen, USAF*

**E**GLIN AIR FORCE BASE, Fla. (AFMCNS)—For a long time now the members of the Long Range Missile Systems Group believed they had the best program director in the Air Force. Now it's official.

Recently their commander, Col. Jim Geurts, was named the 2005 Air Force Outstanding Military System Program Director, and they believe no one is more deserving.

"Without a doubt, he deserves to be recognized for the transformation that took place under his leadership," said Capt. Anita Skipper, Joint Air-to-Surface Standoff Missile-Extended Range deputy program manager. "It is a great day when those who deserve to be rewarded get recognized."

"He is the most worthy person I can think of to earn this distinction," said Moe Bandy, JASSM test director. "[He] is the finest example of a military officer I've known in my 25 years of service."

The LRMSG falls under the Air-to-Ground Munitions Systems Wing and their leader is also very grateful to have Geurts as part of his team.

"It is a privilege to serve with Col. Geurts," said Thomas Robillard, AGMSW director. "He is a model leader, strategist, and tactician. He has laser-like focus on the mission and his folks."

When Geurts learned he had won the award, he said he immediately thought of his troops that have worked so hard this past year.

"I am very happy that the tireless efforts of the LRMSG team over the last year were in part recognized by my selection," he said. "To me, being a part of that team is an honor in itself, and winning this award is just icing on the cake."

In 2005 Geurts guided the JASSM program through quite a few challenges. He pushed the highly sought after weapon from stop-test status to Initial Operational Capability on the B-1 and B-52. He helped prove its reliability, got it back on track and delivered more than 200 weapons ahead of schedule.

"(JASSM) was in real trouble with a lot of very important stakeholders," Robillard said. "[Col. Geurts] led his team into every briefing, worked every issue, and answered countless questions. In the end, support for the program was restored and a much improved and very important combat capability will be available to the warfighter."

Geurts also led JASSM-ER through its early development stages this past year. He kept it on track to meet the Secretary of the Air Force's challenge of fielding the weapon by 2008.

The colonel arrived at Eglin in June 2004 and is scheduled to depart next month to the Special Operations Command headquarters where he will be the program executive officer for Fixed Wing Aircraft. However, he said he is proud to have served with such a great team.

"I believe all individual awards are really a reflection of the entire unit, so in that respect, this award speaks highly of our entire unit," Geurts said. "One person cannot guarantee success nor do all the work. It takes the coordinated and enthusiastic efforts of the entire team, working towards a common goal, to be successful. Working hard problems with a great team is always a leader's dream, and JASSM had both."

*Hansen is with Air Armament Center Public Affairs.*



### ELECTRONIC SYSTEMS CENTER PUBLIC AFFAIRS (MARCH 3, 2006) CENTER CHARTING 'SMART' COURSE WITH BLUE TEAMS

Chuck Paone

**H**ANSCOM AIR FORCE BASE, Mass.—An ounce of prevention equals a pound of cure, according to the old adage, and the Electronic Systems Center has taken that message to heart.

The Air Force has vowed to improve its acquisition timeliness and cost through an initiative known as “Going Green”—green symbolizing a program that is in good shape using the stoplight model.

The goal is to have nine out of every 10 Air Force programs in that category by 2010.

One way to ensure this happens, Electronic Systems Center leaders say, is to prevent programs from ever being anything but green.

“It costs incredibly less to identify and resolve problems early, rather than later in the program life cycle,” said Rich Byrne of the MITRE Corp., who serves as the technical director within Electronic Systems Center’s Engineering Directorate. “A recent NASA study showed software repair costs can increase over 300 times when discovered at the end versus the beginning of a program.”

One way to do this is by forming so-called Blue Teams that enhance the risk-reduction efforts for an acquisition program. Many people are familiar with the concept of Red Teams, which swoop in when a program has veered off-track and work to right it.

In contrast, Blue Teams work tirelessly to avoid the problems in the first place.

“There are instances where we’ve gone in and said, ‘what are all the complaints we can anticipate two years down the road?’ and then we tried to engineer the system to address them before they ever materialized,” Byrne said.

A prime example of this is the E-10 program. This new aircraft, which is being designed to provide superior airborne ground moving target indication, cruise missile defense, and superior airborne battle management capabilities, instituted Blue Team reviews early on.

“The E-10 has a four-year history of conducting several Blue Teams each year,” said Charlie Arouchon, director

of engineering for the E-10 program. “These are hard, independent scrubs of the program that lead to full and open discussion. The key is in developing a culture of continuous improvement where people have an open mindset and program managers try to help the Blue Team find concerns before they become problems.”

The Blue Teaming concept transcends technical issues, too. Virtually every aspect of an acquisition program can benefit from this sort of early intervention, says Sue Angell, director of Electronic Systems Center’s Acquisition Center of Excellence.

“We talk a lot about streamlining the source selection process, but we must broaden the definition to also include the steps leading up to the actual selection process. Most of the value will come from better managing those steps,” she said. “It’s important, for instance, to look at the program risks at the same time we accept the workload. We also need to ensure we have solid requirements, a sound acquisition strategy, and that we put out a very clear request for proposals.”

Angell’s office is already helping program managers with all of this. As the center works to institutionalize a broadened version of the Blue Teaming concept, it’s possible that most programs would have independent specialists from the ACE review and help them perform their pre-source selection activities, she said.

Other functional offices such as contracting and legal could also play a part on such teams.

“There are a lot of resources that can be brought together to make sure a program starts out in great shape,” Angell said. “And that’s the best way to help ensure it stays healthy.”

One of the benefits of the Blue Team process is that once it’s been operating for awhile, it should start to yield some recurring signals that serve as “leading indicators” of potential problems.

“These will tell us when we need to form a Blue Team, if we haven’t already,” Byrne said.

Blue Teams are just one of many ways Electronic Systems Center is doing business consistent with the Air Force Smart Ops 21 construct. Smart Ops 21, which seeks to improve productivity while reducing waste, relies on proven industry practices such as Six Sigma and Lean.



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"All of Electronic Systems Center's processes are actually based on a culture of continuous process improvement, and that's really what Smart Ops is all about," said Dr. James Cunningham, Electronic Systems Center's director of engineering.

*Paone is with Electronic Systems Center Public Affairs.*

### DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 7, 2006) **DOD REPORTS TO CONGRESS ON ENVIRONMENTAL PROGRESS**

**T**he Department of Defense recently released its fiscal 2005 Defense Environmental Programs Annual Report to Congress.

The report details DoD spending and performance in four major environmental program areas: conservation, environmental restoration, compliance, and pollution prevention. It is through these four programs that DoD manages its natural and cultural resources, restores contaminated lands, administers its regulatory compliance activities, and prevents hazardous materials from reaching communities on the approximately 30 million acres of land under DoD stewardship.

The annual report shows that DoD is making significant progress in several areas.

**Conservation**—By the end of fiscal 2005, DoD had completed approximately 86 percent of biological inventories and 88 percent of wetlands inventories, and updated 93 percent of the natural resource management plans and 68 percent of the cultural resource management plans. A biological inventory, used for management of natural resources, is an inventory of any plants and animals located on the installation to identify high-priority resources in order to develop conservation measures and guide land management practices. Wetlands inventories identify the characteristics, extent, and status of wetlands, deepwater habitats, and other wildlife habitats located on an installation.

**Environmental Restoration**—DoD has had a large-scale environmental restoration effort underway for nearly two decades and has met required cleanup standards at approximately 72 percent of its current and former defense properties impacted from past defense activities. In fiscal 2005 alone, DoD completed cleanup efforts at 269 sites.

**Compliance**—Under federal environmental laws, DoD must comply with the same federal, state, and local environmental laws and regulations that apply to state and local governments and the private sector. For DoD, fiscal 2005 saw a 9 percent decline in open enforcement actions and an 8 percent decline in new enforcement actions over the same period in fiscal 2004.

**Pollution Prevention**—Efforts in pollution prevention are a central focus of DoD management efforts at the installation level. In fiscal 2005, DoD realized a cost savings of \$159.9 million by employing integrated solid waste management practices and diverting over 55 percent of solid waste from ever entering landfills.

"DoD strives to continuously improve its environmental performance by proving itself to be a strategic environmental leader by exceeding compliance standards, improving operational efficiency, and enhancing partnerships to identify new and innovative opportunities," said Alex Beehler, assistant deputy under secretary of defense for environment, safety, and occupational health. "Together, DoD and the components ensure the safety of human health and secure the environmental future of defense properties to maintain a safer America."

The 2005 report is available online at <https://www.denix.osd.mil/DEP2005>.

### DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 16, 2006) **DOD ANNOUNCES 2006 NUNN-PERRY AWARD WINNERS**

**T**he Department of Defense honored 12 corporate partnerships with the prestigious Nunn-Perry Award during the 2006 Mentor-Protégé Conference held in Atlanta, Ga., March 6-9.

The award is named in honor of former Senator Sam Nunn of Georgia and former Secretary of Defense William Perry, whose sponsorship and commitment were instrumental in creating and implementing the DoD Mentor-Protégé program.

Frank Ramos, director of DoD's Office of Small Business Programs, said, "The technologies and products benefiting today's warfighter in the field are, in part, the result of bringing small businesses into the forefront. We recognize these Mentor-Protégé teams whose extraordinary efforts have exceeded their developmental plans and helped transform the DoD acquisition process."



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This year's Nunn-Perry Award recipients are:

- AMEC Earth and Environmental Inc., Chantilly, Va., and Echota Technologies Corp., Maryville, Tenn.
- The Boeing Co., Integrated Defense Systems, St. Louis, Mo., and Kemco Manufacturing, St. Louis, Mo.
- The Boeing Co., Integrated Defense Systems, St. Louis, Mo., and Precision Machine & Manufacturing, Grove, Okla.
- Earth Tech Inc., Richmond, Va., and ETI Professionals Inc., Lakewood, Colo.
- Lockheed Martin Maritime Systems & Sensors-Undersea Systems, Manassas, Va., and M & M Technical Services Inc., Woodbridge, Va.
- Northrop Grumman Space Technology, Redondo Beach, Calif., and KW Microwave Corp., Carlsbad, Calif..
- Raytheon Aircraft Co., Wichita, Kan., and Product Manufacturing Co., Wichita, Kan.
- Science Applications International Corp., Oak Ridge, Tenn., and Arrowhead Contracting Inc., Overland Park, Kan.
- Science Applications International Corp., Oak Ridge, Tenn., and Ellis Environmental Group, L.C., Newberry, Fla.
- Shaw Environmental Inc., Concord, Calif., and Engineering/Remediation Resources Group, Inc., Concord, Calif.
- Tetra Tech EC Inc., San Diego, Calif., and T N & Associates, Inc., Milwaukee, Wis.
- General Dynamics C4 Systems, Taunton, Mass., and CDP Fastener Group Inc., Brockton, Mass.

Winners were selected from more than 30 partnership agreement nominations. A complete list of this year's winners and past winners is available at <<http://www.dodsbconference.com>>.

The DoD Mentor-Protégé program is the leading mentor-protégé model for similar programs in other government agencies. More information on the program is available online at <[http://www.acq.osd.mil/sadbu/mentor\\_protege.com](http://www.acq.osd.mil/sadbu/mentor_protege.com)>, by e-mailing [programinformationmp@osd.mil](mailto:programinformationmp@osd.mil), or by calling (800) 540-8857.

### DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 16, 2006) **DOD AWARDS \$40.4 MILLION TO UNIVERSITIES FOR RESEARCH EQUIPMENT**

**T**he Department of Defense today announced plans to award \$40.4 million to academic institutions to support the purchase of research instrumentation. The awards are being made under the Defense University Research Instrumentation Program (DURIP).

The 183 awards to 88 academic institutions are expected to range from about \$51,000 to \$1 million and average \$217,000. DURIP supports the purchase of state-of-the-art equipment that augments current university capabilities or develops new university capabilities to perform cutting-edge defense research. DURIP meets a critical need by enabling university researchers to purchase scientific equipment costing \$50,000 or more to conduct DoD-relevant research. The researchers generally have difficulty purchasing instruments costing that much under their research contracts and grants.

All awards are subject to the successful completion of negotiations between DoD research offices and the academic institutions.

This announcement is the result of a merit competition for DURIP funding conducted by the Army Research Office, Office of Naval Research, and Air Force Office of Scientific Research. Each office requested proposals from university investigators working in areas of importance to DoD such as information technology, remote sensing, propulsion, electronics and electro-optics, advanced materials, and ocean science and engineering. In response to the requests, the research offices collectively received 933 proposals requesting \$254 million in support for research equipment.

The complete list of winning proposers may be obtained by accessing: <<http://www.defenselink.mil/news/March2006/d20060316DURIP.pdf>>.

### AIR FORCE PRINT NEWS (MARCH 21, 2006) **NEW CUSTOMER LOGISTICS SUPPORT CENTERS MAKE LIFE SIMPLER**

*Staff Sgt. Julie Weckerlein, USAF*

**W**ASHINGTON—New Air Force combat and mobility logistics support centers opening in early April will make ordering, tracking, and shipping supplies to troops worldwide a simpler, more customer-friendly process, said officials here.

The centers will open at Langley Air Force Base, Va., and Scott AFB, Ill.

"The [centers] are poised to provide enterprise-wide support to our forces at home or deployed," said Gen. T. Michael Moseley, Air Force chief of staff. "The centers will take on the support of our Air Reserve components and our contracted supply accounts, becoming truly total force logistics organizations."





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In the past, five major command regional supply squadrons were controlling all supply back-shop functions for their bases, to include funding, stock control, equipment, and records management, as well as computer operations.

"The problem with that was the support was based on geographical boundaries, requiring the support from two or more centers when units were deployed," said Air Force Lt. Col. Scott Tew, chief of the operations readiness support branch.

"With these support centers, everything is going to be centralized," Tew said. "If airmen get orders to deploy, they will be able to pick up the phone and talk to one person to get the supplies they need for that deployment. And once they're at the deployed location and they need more supplies, they'll be able to contact that same person to order what they need."

While regional logistics sites will remain in various locations around the world, the centers will be the hubs providing oversight to everything from the maintenance to the distribution of supplies to forecasting the need for supplies in certain areas.

"How many times is an aircraft grounded because parts are unavailable or in the process of being fixed? That's a situation we don't want our troops to be in, especially deployed," Tew said. "We will be able to predict where things will be needed before they're actually needed. The goal is to better prepare our airmen out there."

Tew compared the centers to those of civilian companies who ship packages worldwide in a matter of days.

"People call upon those companies because they know if they send something, it's going to arrive where it's intended, sometimes overnight," he said. "That kind of dependability and predictability is what we hope comes from these centers."

### ARMY NEWS SERVICE (MARCH 23, 2006) SENIOR TEST MANAGER AWARDED FOR PROTECTING SOLDIERS

Mike Cast

**A**BERDEEN PROVING GROUND, Md.—A senior test manager for the Army Test and Evaluation Command was recognized by the National Defense Industrial Association as the 2005 Civilian Tester of the Year in a ceremony at the 22nd Annual National



Mark Simon, senior test manager for the Army Developmental Test Command, receives the 2005 Civilian Tester of the Year award from the National Defense Industrial Association.

Photograph by Mike Cast.

Test and Evaluation Conference in Jacksonville, Fla., March 8.

Mark Simon was presented the award by Walter Hollis, deputy under secretary of the Army for operations research, for providing timely and successful designs and testing of armor materials for use on combat and tactical vehicles in Iraq and Afghanistan.

"I am blessed to be able to work for such a great organization and with a great team, and be able to do something that has a real impact on saving soldiers' lives," Simon said.

Simon's efforts have ensured that armor on Army wheeled vehicles protects soldiers from improvised explosive devices and other ballistic threats. He has over-



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seen the testing of armor kits designed to fit on the High Mobility Multipurpose Wheeled Vehicle, the Family of Medium Tactical Vehicles, the Heavy Expanded Mobility Tactical Truck, the Palletized Load System, and the U.S. Marine Corps' Medium Tactical Vehicle Replacement.

Simon also took the lead on designing an armor kit to protect crews from IEDs in the Fox Nuclear, Biological, and Chemical Vehicle.

*Cast serves with Developmental Test Command Public Affairs.*

### DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 3, 2006)

#### **DOD ANNOUNCES WINNERS OF THE COMMANDER IN CHIEF'S ANNUAL AWARD FOR INSTALLATION EXCEL- LENCE**

**S**ecretary of Defense Donald H. Rumsfeld announced today the winners of the 2006 Commander in Chief's Annual Award for Installation Excellence. They are:

- Fort Stewart and Hunter Army Air Field, Hinesville, Ga.
- Marine Corps Air Station Yuma, Yuma, Ariz.
- Naval Air Station Whidbey Island, Oak Harbor, Wash.
- Ramstein Air Base, Germany
- Defense Distribution Depot Susquehanna, Harrisburg, Pa.

The Commander in Chief's Annual Award for Installation Excellence recognizes the outstanding and innovative efforts of the people who operate and maintain U.S. military installations. The five recipients of this highly competitive presidential award were selected for their exemplary support of Department of Defense missions.

Excellent installations enable better mission performance and enhance the quality of life for military men and women and their families. Each winning installation succeeded in providing excellent working, housing, and recreational conditions.

### DEFENSE LOGISTICS AGENCY NEWS RELEASE (APRIL 11, 2006)

#### **IDE/GTN CONVERGENCE IMPROVES LOGISTICS/TRANSPORTATION VISIBIL- ITY**

**F**ORT BELVOIR, Va.—Increased logistics information sharing across the Department of Defense, improved reliability and responsiveness for data exchange needs, and enhanced materiel visibility are

among the benefits customers can expect from a new program management partnership recently announced by U.S. Transportation Command and the Defense Logistics Agency. The partnership will integrate defense supply chain-, logistics-, transportation-, and distribution-related data and information technology services.

A new program office has been established to unify logistics/distribution/transportation visibility efforts between DLA's Integrated Data Environment (IDE) initiative and USTRANSCOM's Global Transportation Network (GTN) program, with the goal of eliminating redundancy, streamlining access to data, and optimizing resources.

The convergence of the two programs will provide common integrated data services to assist development of applications that will give combatant commands, the Services, DoD, and other federal agencies a cohesive solution to manage supply chain, distribution, and logistics information. Convergence will provide a single point of systems data integration within and between DLA and USTRANSCOM and other systems; ensure consistent access to common, authoritative logistics data and business rules; and provide reliable information for DLA and USTRANSCOM and their customers.

To smooth the integration process, both programs have been placed under a single program executive officer, David Falvey, at DLA. The program manager is Army Lt. Col. Pat Flanders at USTRANSCOM. Flanders is currently leading a 90-day technical analysis to evaluate and recommend the best approach to deliver these capabilities. After the analysis, the DLA/USTRANSCOM team will jointly develop the strategy for delivering the necessary data sharing and systems to provide this needed end-to-end capability.

*Media Contact is Marcia Klein, 703-767-5064 or e-mail [marcia.klein@dla.mil](mailto:marcia.klein@dla.mil).*

### DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 11, 2006)

#### **DOD ANNOUNCES WINNERS OF ANNUAL MODELING AND SIMULATION AWARDS**

**T**he Department of Defense announced today that five winners have been selected for the eighth annual Department of Defense Modeling and Simulation (M&S) Awards. The winners for each category are:



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**Acquisition:** Joint Attack Munitions Systems (JAMS) Project Office, U.S. Army Program Executive Office for Missiles and Space. Team award for developing an innovative approach for simulation-based acquisition. The team's synergistic process of taking advantage of tri-Service government technical expertise—developed over years of experience on legacy, as well as ongoing programs in an integrated product team environment to develop an integrated flight simulation and accompanying tool set—will reduce risk, lead to a better product in a shorter period of time, and at a lower cost to the taxpayer.

**Analysis:** Weapon Effects Analysis and Probability System (WEAPS) Team, Air Force Materiel Command. Team award for developing and maintaining a world-class software simulation tool that is highly valued by the warfighter and supports combatant command requests for campaign, theater, and engagement analyses of air-to-surface munitions effectiveness. WEAPS makes a critical contribution to theater-level models such as the Combat Forces Assessment Model and is a key tool in the annual Non-Nuclear Consumables Annual Analysis process.

**Test and Evaluation:** U.S. Air Force Maj. Kelly A. Greene, Ph.D., Air Force Agency for Modeling and Simulation. Individual award for significant contributions to advancing M&S in support of test and evaluation (T&E). Greene innovated and transformed T&E at both the Air Force and joint levels, altering the use of live, virtual, and constructive distributed M&S environments in support of T&E. Greene is directly responsible for the largest progression of distributed T&E ever recorded in a single year.

**Training:** U.S. Army Maj. Daniel P. Ray, Office of the Army Deputy Chief of Staff, G-2. Individual award for developing the "Every Soldier is a Sensor Simulation" to increase a soldier's situational awareness on the battlefield. He took the concept from infancy to a low-cost working prototype in 90 days. Following the success of the prototype, he spearheaded further development, delivering a product that is being used to train thousands of soldiers who are daily having a direct impact on the Global War on Terrorism.

**Cross-Function:** Training Improvised Explosive Device (TIED) Team, Army Program Executive Office for Simulation, Training, and Instrumentation. Team award for providing a safe and realistic training system to replicate the IEDs employed against coalition forces by insurgents in Iraq. The TIED Team, jointly with the U.S. Joint Forces Command, rapidly developed, coordinated, contracted,

developed, and fielded this critical capability to the warfighter.

The annual awards recognize achievement in support of DoD M&S objectives. Seventy-nine nominations were received from across DoD.

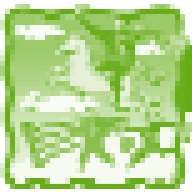
For more information visit <<http://www.dmsomil/public/community/awards/>> or contact the Defense Modeling and Simulation Office at (703) 824-3437 or [pao@dmsomil](mailto:pao@dmsomil).

### DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 12, 2006)

#### DOD ANNOUNCES WINNERS OF THE SECRETARY OF DEFENSE ENVIRONMENTAL AWARDS

**T**he Department of Defense announced today the winners of the 2005 Secretary of Defense Environmental Awards. A panel of judges representing federal and state agencies and public members selected the following installations and teams as the winners of the fiscal 2005 Secretary of Defense Environmental Awards:

- **Naval Air Weapons Station China Lake, Calif.**  
Installation—Cultural Resources Management
- **Fort Campbell, Ky.**  
Non-Industrial Installation—Environmental Quality
- **Dyess Air Force Base, Texas**  
Team—Environmental Quality
- **Fort Lewis, Wash.**  
Installation—Environmental Restoration
- **Pyramid Lake Torpedo and Bombing Range Remediation Project Team, U.S. Army Corps of Engineers, Sacramento District**  
Team—Environmental Restoration
- **Marine Corps Base Hawaii**  
Small Installation—Natural Resources Conservation
- **Camp Ripley, Minn.**  
Team—Natural Resources Conservation
- **Tinker Air Force Base Pollution Prevention Team, Tinker Air Force Base, Okla.**  
Installation—Pollution Prevention
- **C-17 Pollution Prevention Integrated Product Team, Wright-Patterson Air Force Base, Ohio**  
Team—Weapon System Acquisition
- **Defense Logistics Agency Environmental Management Systems**  
Team—Special Recognition for Environmental Management Systems Implementation



## Acquisition & Logistics Excellence

Every year since 1962, the secretary of defense recognizes installations, teams, and individuals for outstanding achievement in environmental management, at both domestic and overseas bases, to sustain military readiness, and training and operational capabilities.

Under Secretary of Defense for Acquisition, Technology and Logistics Kenneth Krieg officiated at a ceremony honoring the winners May 3, 2006, in the Pentagon Auditorium. U.S. Environmental Protection Agency Deputy Administrator Marcus Peacock delivered the keynote address.

Details on the Secretary of Defense Environmental Awards Program and highlights of this year's winners and honorable mentions can be found at <https://www.denix.osd.mil/denix/Public/Library/Awards/awards.html>.

### INDUSTRY ANSWERS DOD'S MANDATE FOR ITEM UNIQUE IDENTIFICATION

*Alena Amy*

**I**n April 2005, the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics issued the Item Unique Identification (IUID) policy. The policy requires that all acquisitions costing over \$5,000 have a unique identification number, making acquisition, repair and deployment of items faster and more efficient. General Dynamics, Lockheed Martin, Rolls-Royce, and Sikorsky are among the companies that are leading the way regarding policy compliance as an opportunity to also improve their day-to-day business activities. The stories of how they met the challenge of IUID compliance offer a dynamic overview of the steps involved and benefits to be found in reaching this goal.

#### General Dynamics

General Dynamics (GD), a leader in mission-critical information systems and technologies, found their starting point for IUID implementation in education, arming themselves with knowledge from the Web, consultants, suppliers, and Department of Defense seminars; they also formed their own council to oversee and disseminate information.

Steve Chenard, who manages General Dynamics C4 Systems Operations Business Systems and Transformation team, observes that "once the requirements firmed up and were well understood and risk areas were identified, the initial sense of complexity faded away." With the support of their internal stakeholders, the team moved forward by conducting an initial paper pilot that mapped

out the next steps for an incremental trial implementation. They started with an abstract scenario and proposal in order to easily comply with any potential changes in the requirements and then worked through contract creation and project setup. By running through the processes beforehand and building a small amount of flexibility into the plan, they provided themselves with a learning opportunity—a start to developing in-house expertise and surety that if the final DoD rulings changed they would be prepared. Only after these supporting processes were put into place did the real work begin.

General Dynamics achieved compliance with their first shipment of goods in the spring of 2005. Although a financial return on investment is still pending, General Dynamics has seen many other benefits from the implementation. They have been able to maintain their leadership position with their customers, better support our warfighters, and they anticipate new business and additional service offerings because they met compliancy requirements early on.

#### Lockheed Martin

Lockheed Martin delivered the first IUID-compliant shipment of goods in August 2004, just five months after formally beginning their compliance and optimization efforts. Lockheed had a slight advantage over other DoD contractors through use of their I-GUIDE software application, which is designed to provide the framework for a paperless factory. The time developing this software application gave Lockheed an early understanding of the scope of implementation.

Lockheed gathered a diverse group of commercial and government experts to sit on the self-directed integrated products team (IPT). In order to address the challenges, the IPT provided a one-company concept resulting in a single compliant solution that was developed by leveraging common adaptable toolsets. Through the use of these toolsets, the team streamlined implementation across the varied divisions of the company, reduced cost and efficiency, and came up with a single application to use across the board. Since compliancy was reached, the company has submitted over 4,000 error-free IUIDs to the DoD registry.

#### Rolls Royce

Rolls Royce offers a competitive range of products in the global civil and defense aerospace, marine, and energy markets. Direct part marking gives Rolls-Royce its competitive edge and is directly related to the DoD's IUID policy, although it operates on an even larger scope. Di-





## Acquisition & Logistics Excellence

rect part marking employs the same technology, standards, and data matrix identification as IUID, but it doesn't assign a unique identification number. With this technology already in place in their infrastructure, Rolls-Royce proactively pursued adoption of the IUID system, not only to comply with external standards but also to realize internal enhancements. The greatest of these improvements for Rolls-Royce would be to reduce quality failures associated with identification.

Similar to other corporations presented in this article, the two greatest obstacles for Rolls-Royce were the challenge of effectively communicating the requirement and the need to manage the process change within the organization. The manufacturers needed reliable, robust processes and results that were consistent and repeatable. Rolls-Royce worked to define clear requirements, communicate, provide points of contact, develop implementation plans, monitor processes, and maintain the support of internal and external stakeholders until they arrived at process capability. Nat Russhard, team leader of direct part marking says, "It's easy to take the shortest route just to become compliant, but if you take the next steps and leverage it as a life cycle management technique and transform your data capture process, then it will add much more value than just compliance."

### Sikorsky

Sikorsky is the prime contractor for the U.S. Army's Utility Helicopters Project Office (UHPO) and is involved in the IUID implementation on a number of fronts. The UHPO began to proactively investigate the IUID technology well ahead of the DoD mandate. The Army has used their proactive approach as a model for how implementation should be accomplished.

In order to determine how to mark each part, the UHPO had Sikorsky evaluate the surface condition, the material, and the elements to which each part is exposed. After all of these variables were taken into account, Sikorsky could make engineering recommendations on how to best mark the part. By providing an automatic and accurate method to capture and track data, IUID is a fundamental enabler of fleet management for Sikorsky. Technicians no longer have to track hours because information on the time-sensitive parts is being automatically captured. IUID is the basic building block in the program for managing Sikorsky's aircraft fleets. The ability to scan a machine-readable data matrix code when a part is installed or removed from an aircraft will eliminate the



IUID is a new, globally unique "part identifier" containing data elements used to track DoD parts through their life cycle. UID data are encoded into data matrix symbols that are applied to parts using direct part marking processes (DPM). The DoD has moved to this transformation technology to facilitate electronic data capture and transmission. Image courtesy Siemens Acuity CiMatrix.

common errors we see today. There is less paperwork, it saves manhours, it enables an error-free environment, and it gives visibility to the specific parts installed on the aircraft. In addition to giving Sikorsky better insight into faulty parts, IUID will revolutionize warehousing and component tracking.

For all these companies, education was absolutely vital. Getting all the policies and related information, going to forums and seminars, having detailed briefings that explain what IUID is about—all were crucial to implementation. The benefit realized by each company, even at such an early stage of the game, is having a better handle on their own inventory data and having a single point of reference with DoD. The long-term benefits they anticipate from IUID are increased business intelligence, lowered asset management cost, warranty tracking, shop floor control, and historical analysis of inventory data. And of course, return on investment is not far behind when all this comes into play.

*Amy is a project analyst with XIO Strategies of McLean, Va.*



## AT&L Workforce— Key Leadership Changes

AIR FORCE PRINT NEWS (MARCH 3, 2006)

### GENERAL LORD RETIRES FROM AIR FORCE SPACE COMMAND HELM

*Capt. Karim Ratey, USAF*

**P**ETERSON AIR FORCE BASE, Colo.—After a 37-year career, Gen. Lance W. Lord, commander of Air Force Space Command, retired in a ceremony here today.

Air Force Chief of Staff Gen. T. Michael Moseley presided over the event. There were more than 700 current and former defense leaders, active and retired military members, and civic leaders at the ceremony.

Vice commander Lt. Gen. Frank G. Klotz will temporarily assume command until Congress names Lord's successor.

Lord has led the space command—and its nearly 40,000 space and missile professionals around the globe—since April 19, 2002.

During the ceremony, Moseley presented Lord with the Distinguished Service Medal, first oak leaf cluster, for his service.

Lord—fond of saying, “If you’re not in space, you’re not in the race”—spoke about two highlights he was most proud of during his last command. First, he thanked the Air Force enlisted professionals who bestowed him with their highest honor, The Order of the Sword. Second, he described the High Frontier Adventures program, which involves school children.

“Most recently, I had a chance to teach a math and science class with 27 young sixth-graders at the Discovery Canyon Campus north of here in Colorado Springs,” Lord said. “Our whole idea was to get the word out ... for us to participate with young people to help drive their interest in science and mathematics.”

Colorado Governor Bill Owen declared March 3, 2006, Gen. Lance Lord Day in the state.

During his tenure the general had a long list of accomplishments. Among them: enabling the command to pro-



Air Force Chief of Staff Gen. T. Michael Moseley (left) prepares to hand the Air Force Space Command four-star flag of command to Gen.

Lance W. Lord, right, during his retirement ceremony at Peterson Air Force Base, Colo., Friday, March 3, 2006. Lord retired after a 37-year Air Force career.

*U.S. Air Force photograph.*

vide combat forces and capabilities to North American Aerospace Defense Command and U.S. Strategic Command; supporting combat operations around the world to include Operations Enduring Freedom and Iraqi Freedom; establishment of the National Security Space Institute; the last Titan IV launch; and the Peacekeeper intercontinental ballistic missile weapon system deactivation.

Moseley expanded on General Lord's leadership.

“Lance, this current generation of space leaders and leaders across our entire Air Force looked to General Bennie [Bernard] Schriever as the pioneer and father of space and missiles,” Moseley said. “However, I think



## AT&L Workforce—Key Leadership Changes

there's another leader among us that future leaders will look up to.

"The lieutenants and captains today, and the airmen and cadets of today will grow up looking at you," he said. "They'll look at Lance Lord as that next generation of space leader because of what you've done."

*Ratey is with Air Force Space Command Public Affairs.*

### DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 17, 2006) GENERAL OFFICER ASSIGNMENTS

**T**he chief of staff, Air Force announces the assignments of the following general officers:

**Maj. Gen. (S) Delwyn R. Eulberg**, director, installations and Mission Support, Headquarters Air Mobility Command, Scott Air Force Base, Ill., to the civil engineer, Deputy Chief of Staff, Logistics, Installations and Mission Support, Headquarters United States Air Force, Pentagon, Washington, D.C.

**Brig. Gen. Robert H. Holmes**, director, Security Forces and Force Protection, Deputy Chief of Staff, Logistics, Installations and Mission Support, Headquarters United States Air Force, Pentagon, Washington, D.C., to deputy director, Operations—Force Protection, Headquarters United States Central Command, MacDill Air Force Base, Fla.

**Brig. Gen. Mary Kay Hertog**, commander, 37th Training Wing, Air Education and Training Command, Lackland Air Force Base, Texas, to director, Security Forces and Force Protection, Deputy Chief of Staff, Logistics, Installations and Mission Support, Headquarters United States Air Force, Pentagon, Washington, D.C.

**Brig. Gen. Duane A. Jones**, commander, Air Force District of Washington and commander, 11th Wing, Bolling Air Force Base, Washington, D.C., to director, Logistics, Headquarters United States Air Forces in Europe, Ramstein Air Base, Germany.

### DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 22, 2006) GENERAL OFFICER ANNOUNCEMENT

**S**ecretary of Defense Donald H. Rumsfeld announced today that the President has nominated **Marine Corps Maj. Gen. Frances C. Wilson**, for appointment to the grade of lieutenant general and for appointment as the president, National Defense Univer-

sity. Wilson is currently serving as the commandant, Industrial College of the Armed Forces, Washington, D.C.

### DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 30, 2006) GENERAL OFFICER ANNOUNCEMENTS

**S**ecretary of Defense Donald H. Rumsfeld announced today that the President has made the following nominations:

**Army Maj. Gen. Michael D. Rochelle** has been nominated for appointment to the rank of lieutenant general and assignment as deputy chief of staff, G-1, U.S. Army, Washington, D.C. Rochelle is currently serving as director, Installation Management Agency, Arlington, Va.

**Maj. Gen. Robert Wilson** has been nominated for appointment to the rank of lieutenant general and assignment as assistant chief of staff for Installation Management, Army, Washington, D.C. Wilson is currently serving as the assistant deputy chief of staff, G-3/5/7, Army, Washington, D.C.

### NAVAL SUPPLY SYSTEMS COMMAND (APRIL 4, 2006) JOHN C. GOODHART NAMED NAVSUP EXECUTIVE DIRECTOR

**R**ear Admiral Daniel H. Stone, commander, Naval Supply Systems Command (NAVSUP), announced April 4, 2006, the selection of **John C. Goodhart** to replace Jeffery Orner as NAVSUP executive director. Orner's move to the U.S. Coast Guard was announced earlier.

Goodhart currently serves as assistant deputy commander, Fleet Logistics Support in the Logistics, Maintenance, and Industrial Operations Directorate at the Naval Sea Systems Command (NAVSEA). He is the senior logistician at NAVSEA responsible for logistics policy, processes, tools, and execution of both acquisition logistics and in-service support. Prior to his present assignment he served as the deputy site director of Mechanicsburg Operations, Naval Sea Logistics Center.

Goodhart graduated summa cum laude from the University of Maryland University College with a bachelor of science degree in business management. He was named Executive of the Year by the Central Pennsylvania Chapter of the Federal Executive Association, was co-winner of NAVSEA's Logistician of the Year Award, and received the Admiral Stan Arthur Award for leading the Naval Logistics Team of the Year. In 2002, Goodhart



## AT&L Workforce—Key Leadership Changes

received the Department of the Navy Meritorious Civilian Service Award.

NAVSUP's primary mission is to provide U.S. naval forces with quality supplies and services. With headquarters in Mechanicsburg, Pa., and employing a worldwide workforce of more than 24,000 military and civilian personnel, NAVSUP oversees logistics programs in the areas of supply operations, conventional ordnance, contracting, resale, fuel, transportation, and security assistance. For more information, contact [cathy.partusch@navy.mil](mailto:cathy.partusch@navy.mil).

### DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 7, 2006) FLAG OFFICER ANNOUNCEMENTS

**S**ecretary of Defense Donald H. Rumsfeld announced today that the President has made the following nominations:

**Navy Capt. William A. Brown** has been nominated for appointment to the rank of rear admiral (lower half). Brown is currently serving as assistant chief of staff for Logistics, Naval Air Force, U.S. Pacific Fleet, San Diego, Calif.

**Navy Capt. Kathleen M. Dussault** has been nominated for appointment to the rank of rear admiral (lower half). Dussault is currently serving as deputy executive director, J33, Defense Logistics Agency, Fort Belvoir, Va.

**Navy Capt. Mark A. Handley** has been nominated for appointment to the rank of rear admiral (lower half). Handley is currently serving as commanding officer, Naval Facilities Mid-Atlantic, Norfolk, Va.

**Navy Capt. Christopher J. Mossey** has been nominated for appointment to the rank of rear admiral (lower half). Mossey is currently serving as chief of staff, Naval Facilities Engineering Command, Washington, D.C.

**Navy Capt. Steven J. Romano** has been nominated for appointment to the rank of rear admiral (lower half). Romano is currently serving as division chief, J4, Joint Staff, Washington, D.C.

### THE WHITE HOUSE (APRIL 17, 2006) PERSONNEL ANNOUNCEMENT

**P**resident George W. Bush today announced his intention to nominate **Paul A. Denett**, of Virginia, to be administrator for federal procurement policy at the Office of Management and Budget. Denett is currently vice president of Contracting Programs at ESI

International. Prior to this, he was senior vice president for program development and government affairs at Star Mountain Incorporated. Earlier in his career, he served as director of administration, director of the Office of Acquisition and Property Management, and senior procurement executive at the Department of Interior. Denett has also served as the director of the Office of Procurement and senior procurement executive at the Department of the Treasury. He received his bachelor's degree from Nasson College and his master's degree from The George Washington University.

### DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 20, 2006) GENERAL OFFICER ASSIGNMENTS

**T**he Chief of Staff of the Army announces the assignment of the following general officers:

**Maj. Gen. Vincent E. Boles**, commanding general, Army Ordnance Center/commandant, Army Ordnance Schools, Aberdeen Proving Ground, Md., to assistant deputy chief of staff, G-4, Army, Washington, D.C.

**Brig. Gen. (promotable) Timothy P. McHale**, commanding general, 19th Theater Support Command, eighth Army, Korea, to director of Center for Logistics Readiness, Office of the Deputy Chief of Staff, G-4, Washington, D.C.

**Brig. Gen. James E. Chambers**, director of Center for Logistics Readiness, Office of the Deputy Chief of Staff, G-4, Army, Washington, D.C., to commanding general/commandant, Army Transportation Center and School, Fort Eustis, Va.

**Brig. Gen. Rebecca S. Halstead**, commanding general, 3rd Corps Support Command, Army Europe and seventh Army, Operation Iraqi Freedom, Iraq, to commanding general, Army Ordnance Center/commandant, Army Ordnance Schools, Aberdeen Proving Ground, Md.

**Brig. Gen. Harvey T. Landwermeyer Jr.**, director, Korea Region Office, Installation Management Agency, Korea, to assistant division commander, 2nd Infantry Division, Eighth Army, Korea.

**Brig. Gen. Raymond V. Mason**, deputy commanding general, Army Field Support Command, with duty as commanding general, Army Materiel Command Forward-Southwest Asia/C-4, Coalition Forces Land Component Command, Kuwait, to commanding general, 19th Theater Support Command, Eighth Army, Korea.





## AT&L Workforce—Key Leadership Changes



ACQUISITION,  
TECHNOLOGY AND  
LOGISTICS

**THE UNDER SECRETARY OF DEFENSE**  
3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3010

FEB 14 2006



MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
(ATTN: ACQUISITION EXECUTIVES)  
UNDER SECRETARY OF DEFENSE PERSONNEL AND READINESS  
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE  
DIRECTOR, ADMINISTRATION AND MANAGEMENT  
DIRECTORS OF DEFENSE AGENCIES  
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: Designation of Mr. Frank J. Anderson, Jr., as OUSD(AT&L) Director, Human Capital Initiatives

Effective immediately, Mr. Frank J. Anderson, Jr., is designated Director, Human Capital Initiatives, reporting directly to me for DoD AT&L workforce human capital matters. This responsibility includes assisting me with execution of all workforce responsibilities identified in DoD Directive 5000.52 to include department-wide DoD AT&L workforce strategic planning, policy, and programs. He is tasked to establish a coherent strategic focus on DoD AT&L human capital initiatives.



Kenneth J. Krieg

cc:  
OUSD(AT&L) Component Heads





## AT&L Workforce—Key Leadership Changes

**THE UNDER SECRETARY OF DEFENSE**  
3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3010



ACQUISITION,  
TECHNOLOGY AND  
LOGISTICS

MAR 20 2006

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
CHAIRMAN OF THE JOINT CHIEFS OF STAFF  
UNDER SECRETARIES OF DEFENSE  
COMMANDERS OF THE COMBATANT COMMANDS  
ASSISTANT SECRETARIES OF DEFENSE  
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE  
DIRECTOR, OPERATIONAL TEST AND EVALUATION  
INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE  
ASSISTANT TO THE SECRETARY OF DEFENSE  
DIRECTOR, ADMINISTRATION AND MANAGEMENT  
DIRECTOR, NET ASSESSMENT  
DIRECTOR, FORCE TRANSFORMATION  
DIRECTORS OF THE DEFENSE AGENCIES  
DIRECTORS OF THE DOD FIELD ACTIVITIES

Subject: Newest Member in the Office of the Under Secretary of Defense  
(Acquisition, Technology and Logistics)

I am pleased to announce the appointment of Mr. Shay Assad as the Director, Defense Procurement and Acquisition Policy (DPAP) effective April 2, 2006. In this capacity, he will serve as the principal advisor to the Deputy Under Secretary of Defense (Acquisition & Technology) on key procurement and acquisition policy matters.

Mr. Assad brings with him extensive executive management and procurement experience from both industry and defense. He previously served as the Assistant Deputy Commandant for Installations and Logistics (Contracts) within the Marine Corps.



Kenneth J. Krieg





ACQUISITION,  
TECHNOLOGY AND  
LOGISTICS

**THE UNDER SECRETARY OF DEFENSE**  
3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3010

APR 06 2006

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
CHAIRMAN OF THE JOINT CHIEFS OF STAFF  
UNDER SECRETARIES OF DEFENSE  
COMMANDERS OF THE COMBATANT COMMANDS  
ASSISTANT SECRETARIES OF DEFENSE  
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE  
DIRECTOR, OPERATIONAL TEST AND EVALUATION  
INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE  
ASSISTANT TO THE SECRETARY OF DEFENSE  
DIRECTOR, ADMINISTRATION AND MANAGEMENT  
DIRECTOR, PROGRAM ANALYSIS AND EVALUATION  
DIRECTOR, NET ASSESSMENT  
DIRECTOR, FORCE TRANSFORMATION  
DIRECTORS OF THE DEFENSE AGENCIES  
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: Newest Member in the Office of the Under Secretary of Defense (Acquisition, Technology and Logistics)

I am pleased to announce the appointment of Mr. William C. Greenwalt as the Deputy Under Secretary of Defense for Industrial Policy effective April 16, 2006. He will serve as the principal advisor to the Deputy Under Secretary of Defense (Acquisition and Technology) on industrial base matters.

Mr. Greenwalt joins our team from the Senate staff where he was a professional staff member for the Committee on Armed Services and was responsible for defense acquisition policy, industrial base, export control, and management reform issues. For the past year, he has served as Deputy to the staff director and provided oversight and management direction over all aspects of the Committee's activities. He was also lead staff member for the Subcommittee on Readiness and Management Support (Senator John Ensign, Chairman) and the Subcommittee on Strategic Forces (Senator Jeff Sessions, Chairman). Please welcome him to our team.



Kenneth J. Krieg





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# Acquisition & Logistics Excellence

An Internet Listing Tailored to the Professional Acquisition Workforce

## Surfing the Net

### Acquisition Central

<http://acquisition.gov/>

Shared systems and tools to help the federal acquisition community and the government's business partners conduct business efficiently.

### Acquisition Community Connection (ACC)

<http://acc.dau.mil>

Policies, procedures, tools, references, publications, Web links, and lessons learned for risk management, contracting, system engineering, total ownership cost.

### Advanced Concept Technology Demonstrations (ACTDs)

[www.acq.osd.mil/actd/](http://www.acq.osd.mil/actd/)

ACTD's accomplishments, articles, speeches, guidelines, and POCs.

### Aging Systems Sustainment and Enabling Technologies (ASSET)

<http://asset.okstate.edu/asset/index.htm>

A government-academic-industry partnership. ASSET program-developed technologies and processes increase the DoD supply base, reduce time and cost associated with parts procurement, and enhance military readiness.

### Air Force (Acquisition)

[www.safaq.hq.af.mil/](http://www.safaq.hq.af.mil/)

Policy; career development and training opportunities; reducing TOC; library; links.

### Air Force Materiel Command (AFMC)

**Contracting Laboratory's FAR Site**

<http://farsite.hill.af.mil/>

FAR search tool; Commerce Business Daily announcements (CBDNet); Federal Register; electronic forms library.

### Army Acquisition Support Center

<http://asc.army.mil>

News; policy; *Army AL&T* Magazine; programs; career information; events; training opportunities.

### Assistant Secretary of the Army (Acquisition, Logistics & Technology)

<https://webportal.saalt.army.mil/>

ACAT Listing; ASA(ALT) Bulletin; digital documents library; ASA(ALT) organization; links to other Army acquisition sites.

### Association for the Advancement of Cost Engineering International (AACEI)

[www.aacei.org](http://www.aacei.org)

Promotes planning and management of cost and schedules; online technical library; bookstore; technical development; distance learning; etc.

### Association of Old Crows (AOC)

[www.crows.org](http://www.crows.org)

News; conventions, courses; *Journal of Electronic Defense*.

### Committee for Purchase from People Who are Blind or Severely Disabled

[www.jwod.gov](http://www.jwod.gov)

Information and guidance to federal customers on the requirements of the Javits-Wagner-O'Day (JWOD) Act.

### Defense Acquisition University (DAU)

[www.dau.mil](http://www.dau.mil)

DAU Course Catalog; *Defense AT&L* magazine and *Defense Acquisition Review Journal*; course schedule; policy documents; guidebooks; training and education news for the AT&L workforce.

### DAU Alumni Association

[www.dauaa.org](http://www.dauaa.org)

Acquisition tools and resources; government and related links; career opportunities; member forums.

### DAU Distance Learning Courses

[www.dau.mil/registrar/enroll.asp](http://www.dau.mil/registrar/enroll.asp)

DAU online courses.

### Defense Advanced Research Projects Agency (DARPA)

[www.darpa.mil](http://www.darpa.mil)

News releases; current solicitations; "Doing Business with DARPA."

### Defense Electronic Business Program Office (DEBPO)

[www.acq.osd.mil/scst/index.htm](http://www.acq.osd.mil/scst/index.htm)

Policy; newsletters; Central Contractor Registration (CCR); assistance centers; DoD EC partners.

### Defense Information Systems Agency (DISA)

[www.disa.mil](http://www.disa.mil)

Structure and mission of DISA; Defense Information System Network; Defense Message System; Global Command and Control System.

### Defense Modeling and Simulation Office (DMSO)

[www.dmsomil](http://www.dmsomil)

DoD Modeling and Simulation Master Plan; document library; events; services.

### Defense Systems Management College (DSMC)

[www.dau.mil](http://www.dau.mil)

DSMC educational products and services; course schedules; job opportunities.

### Defense Technical Information Center (DTIC)

[www.dtic.mil/](http://www.dtic.mil/)

DTIC's scientific and technical information network (STINET) is one of DoD's largest

available repositories of scientific, research, and engineering information. Hosts over 100 DoD Web sites.

### Director, Defense Procurement and Acquisition Policy (DPAP)

[www.acq.osd.mil/dpap](http://www.acq.osd.mil/dpap)

Procurement and acquisition policy news and events; reference library; DPAP organizational breakout; acquisition education and training policy, guidance.

### DoD Defense Standardization Program

[www.dsp.dla.mil](http://www.dsp.dla.mil)

DoD standardization; points of contact; FAQs; military specifications and standards reform; newsletters; training; nongovernment standards; links.

### DoD Enterprise Software Initiative (ESI)

[www.esi.mil](http://www.esi.mil)

Joint project to implement true software enterprise management process within DoD.

### DoD Inspector General Publications

[www.dodig.osd.mil/pubs/](http://www.dodig.osd.mil/pubs/)

Audit and evaluation reports; IG testimony; planned and ongoing audit projects of interest to the AT&L community.

### DoD Office of Technology Transition

[www.acq.osd.mil/ott/](http://www.acq.osd.mil/ott/)

Information about and links to OTT's programs.

### DoD Systems Engineering

[www.acq.osd.mil/ds/se](http://www.acq.osd.mil/ds/se)

IPolicies, guides and other information on SE and related topics, including developmental T&E and acquisition program support.

### Earned Value Management

[www.acq.osd.mil/pm](http://www.acq.osd.mil/pm)

Implementation of earned value management; latest policy changes; standards; international developments.

### Electronic Industries Alliance (EIA)

[www.eia.org](http://www.eia.org)

Government relations department; links to issues councils; market research assistance.

### Federal Acquisition Institute (FAI)

[www.faionline.com](http://www.faionline.com)

Virtual campus for learning opportunities; information access and performance support.

### Federal Acquisition Jump Station

<http://prod.nais.nasa.gov/pub/fedproc/home.html>

Procurement and acquisition servers by contracting activity; CBDNet; reference library.

### Federal Aviation Administration (FAA)

[www.asu.faa.gov](http://www.asu.faa.gov)

Online policy and guidance for all aspects of the acquisition process.

### Federal Business Opportunities

[www.fedbizopps.gov/](http://www.fedbizopps.gov/)

FedBizOpps.gov is the single government point-of-entry for federal government procurement opportunities over \$25,000.

### Federal R&D Project Summaries

[www.osti.gov/fedrnd/about](http://www.osti.gov/fedrnd/about)

Portal to information on federal research projects; search databases at different agencies.

### Federal Research in Progress (FEDRIP)

<http://grc.ntis.gov/fedrip.htm>

Information on federally funded projects in the physical sciences, engineering, life sciences.

### Fedworld Information

[www.fedworld.gov](http://www.fedworld.gov)

Comprehensive central access point for searching, locating, ordering, and acquiring government and business information.

### Government Accountability Office (GAO)

[www.gao.gov](http://www.gao.gov)

GAO reports; policy and guidance; FAQs.

### General Services Administration (GSA)

[www.gsa.gov](http://www.gsa.gov)

Online shopping for commercial items to support government interests.

### Government-Industry Data Exchange Program (GIDEP)

[www.gidep.org/](http://www.gidep.org/)

Federally funded co-op of government-industry participants, providing electronic forum to exchange technical information essential to research, design, development, production, and operational phases of the life cycle of systems, facilities, and equipment.

### GOV.Research\_Center

<http://grc.ntis.gov>

U.S. Dept. of Commerce, National Technical Information Service (NTIS), and National Information Services Corporation (NISC) joint venture single-point access to government information.

### Integrated Dual-Use Commercial Companies (IDCC)

[www.idcc.org](http://www.idcc.org)

Information for technology-rich commercial companies on doing business with the federal government.

### International Society of Logistics

[www.sole.org](http://www.sole.org)



# Acquisition & Logistics Excellence

An Internet Listing Tailored to the Professional Acquisition Workforce

## Surfing the Net

Online desk references that link to logistics problem-solving advice; Certified Professional Logistician certification.

### International Test & Evaluation Association (ITEA)

[www.itea.org](http://www.itea.org)

Professional association to further development and application of T&E policy and techniques to assess effectiveness, reliability, and safety of new and existing systems and products.

### U.S. Joint Forces Command

[www.jfcom.mil](http://www.jfcom.mil)

A "transformation laboratory" that develops and tests future concepts for warfighting.

### Joint Fires Integration and Interoperability Team

<https://jfiit.eglin.af.mil>

USJFCOM lead agency to investigate, assess, and improve integration, interoperability, and operational effectiveness of Joint Fires and Combat Identification across the Joint warfighting spectrum. (Accessible from .gov and .mil domains only.)

### Joint Interoperability Test Command (JITC)

<http://jitic.fhu.disa.mil>

Policies and procedures for interoperability certification; lessons learned; support.

### Joint Spectrum Center (JSC)

[www.jsc.mil](http://www.jsc.mil)

Provides operational spectrum management support to the Joint Staff and COCOMs and conducts R&D into spectrum-efficient technologies.

### Library of Congress

[www.loc.gov](http://www.loc.gov)

Research services; Congress at Work; Copyright Office; FAQs.

### MANPRINT (Manpower and Personnel Integration)

[www.manprint.army.mil](http://www.manprint.army.mil)

Points of contact for program managers; relevant regulations; policy letters from the Army Acquisition Executive; briefings on the MANPRINT program.

### National Aeronautics and Space Administration (NASA)'s Commercial Technology Office (CTO)

<http://technology.grc.nasa.gov>

Promotes competitiveness of U.S. industry through commercial use of NASA technologies and expertise.

### National Contract Management Association (NCMA)

[www.ncmahq.org](http://www.ncmahq.org)

"What's New in Contracting?"; educational products catalog; career center.

### National Defense Industrial Association (NDIA)

[www.ndia.org](http://www.ndia.org)

Association news; events; government policy; National Defense magazine.

### National Geospatial-Intelligence Agency

[www.nima.mil](http://www.nima.mil)

Imagery; maps and geodata; Freedom of Information Act resources; publications.

### National Institute of Standards and Technology (NIST)

[www.nist.gov](http://www.nist.gov)

Information about NIST technology, measurements, and standards programs, products, and services.

### National Technical Information Service (NTIS)

[www.ntis.gov/](http://www.ntis.gov/)

Online service for purchasing technical reports, computer products, videotapes, audiocassettes.

### Naval Sea Systems Command

[www.navsea.navy.mil](http://www.navsea.navy.mil)

Total Ownership Cost (TOC); documentation and policy; reduction plan; implementation timeline; TOC reporting templates; FAQs.

### Navy Acquisition and Business Management

[www.abm.rda.hq.navy.mil](http://www.abm.rda.hq.navy.mil)

Policy documents; training opportunities; guides on risk management, acquisition environmental issues, past performance; news and assistance for the Standardized Procurement System (SPS) community; notices of upcoming events.

### Navy Acquisition, Research and Development Information Center

[www.onr.navy.mil/sci\\_tech](http://www.onr.navy.mil/sci_tech)

News and announcements; acronyms; publications and regulations; technical reports; doing business with the Navy.

### Navy Best Manufacturing Practices Center of Excellence

[www.bmpcoe.org](http://www.bmpcoe.org)

National resource to identify and share best manufacturing and business practices in use throughout industry, government, academia.

### Naval Air Systems Command (NAVAIR)

[www.navair.navy.mil](http://www.navair.navy.mil)

Provides advanced warfare technology through the efforts of a seamless, integrated, worldwide network of aviation technology experts.

### Office of Force Transformation

[www.oft.osd.mil](http://www.oft.osd.mil)

News on transformation policies, programs, and projects throughout the DoD and the Services.

### Open Systems Joint Task Force

[www.acq.osd.mil/osjtf](http://www.acq.osd.mil/osjtf)

Open Systems education and training opportunities; studies and assessments; projects, initiatives and plans; reference library.

### Parts Standardization and Management Committee (PSMC)

[www.dscc.dla.mil/psmc](http://www.dscc.dla.mil/psmc)

Collaborative effort between government and industry for parts management and standardization through commonality of parts and processes.

### Performance-based Logistics Toolkit

<https://acc.dau.mil/pbltoolkit>

Web-based 12-step process model for development, implementation, and management of PBL strategies.

### Project Management Institute

[www.pmi.org](http://www.pmi.org)

Program management publications; information resources; professional practices; career certification.

### Small Business Administration (SBA)

[www.sbaonline.sba.gov](http://www.sbaonline.sba.gov)

Communications network for small businesses.

### DoD Office of Small and Disadvantaged Business Utilization

[www.acq.osd.mil/sadbu](http://www.acq.osd.mil/sadbu)

Program and process information; current solicitations; Help Desk information.

### Software Program Managers Network

[www.spmn.com](http://www.spmn.com)

Supports project managers, software practitioners, and government contractors. Contains publications on highly effective software development best practices.

### Space and Naval Warfare Systems Command (SPAWAR)

<https://e-commerce.spawar.navy.mil>

SPAWAR business opportunities; acquisition news; solicitations; small business information.

### System of Systems Engineering Center of Excellence (SoSECE)

[www.sosece.org](http://www.sosece.org)

Advances the development, evolution, practice, and application of the system of systems engineering discipline across individual and enterprise-wide systems.

### Under Secretary of Defense (Acquisition, Technology and Logistics) (USD(AT&L))

[www.acq.osd.mil/](http://www.acq.osd.mil/)

USD(AT&L) documents; streaming videos; links.

### USD(AT&L) Knowledge Sharing System (formerly Defense Acquisition Deskbook)

<http://akss.dau.mil>

Automated acquisition reference tool covering mandatory and discretionary practices.

### U.S. Coast Guard

[www.uscg.mil](http://www.uscg.mil)

News and current events; services; points of contact; FAQs.

### U.S. Department of Transportation MARITIME Administration

[www.marad.dot.gov/](http://www.marad.dot.gov/)

Information and guidance on the requirements for shipping cargo on U.S. flag vessels.

Links current at press time. To add a non-commercial defense acquisition/acquisition and logistics-related Web site to this list, or to update your current listing, please fax your request to *Defense AT&L*, (703) 805-2917 or e-mail [defenseatl@dau.mil](mailto:defenseatl@dau.mil). DAU encourages the reciprocal linking of its home page to other interested agencies. Contact: [webmaster@dau.mil](mailto:webmaster@dau.mil).

# Defense AT&L Writer's Guidelines in Brief

## Purpose

The purpose of *Defense AT&L* magazine is to instruct members of the DoD acquisition, technology & logistics (AT&L) workforce and defense industry on policies, trends, legislation, senior leadership changes, events, and current thinking affecting program management and defense systems acquisition, and to disseminate other information pertinent to the professional development and education of the DoD Acquisition Workforce.

## Subject Matter

**We do print** feature stories that include real people and events. Stories that appeal to our readers—who are senior military personnel, civilians, and defense industry professionals in the program management/acquisition business—are those taken from real-world experiences vs. pages of researched information. **We don't print** academic papers, fact sheets, technical papers, or white papers. We don't use endnotes or references in our articles. Manuscripts meeting these criteria are more suited for DAU's journal, *Defense Acquisition Review*.

*Defense AT&L* reserves the right to edit manuscripts for clarity, style, and length. Edited copy is cleared with the author before publication.

## Length

Articles should be 1,500 – 2,500 words. Significantly longer articles: please query first by sending an abstract and a word count for the finished article.

## Author bio

Include a brief biographical sketch of the author(s)—about 25 words—including current position and educational background. We do not use author photographs.

## Style

Good writing sounds like comfortable conversation. Write naturally; avoid stiltedness and heavy use of passive voice. Except for a rare change of pace, most sentences should be 25 words or less, and paragraphs should be six sentences. Avoid excessive use of capital letters and acronyms. Define *all* acronyms used. Consult "Tips for Authors" at <<http://www.dau.mil/pubs/damtoc.asp>>. Click on "Submit an Article to *Defense AT&L*."

## Presentation

Manuscripts should be submitted as Microsoft Word files. Please use Times Roman or Courier 11 or 12 point. Double space your manuscript and do not use columns or any formatting other than bold, italics, and bullets. *Do not embed or import graphics into the document file*; they must be sent as separate files (see next section).

## Graphics

We use figures, charts, and photographs (black and white or color). Photocopies of photographs are not acceptable.

Include brief numbered captions keyed to the figures and photographs. Include the source of the photograph. We publish no photographs or graphics from outside the DoD without written permission from the copyright owner. We do not guarantee the return of original photographs.

Digital files may be sent as e-mail attachments or mailed on zip disk(s) or CD. *Each figure or chart must be saved as a separate file* in the original software format in which it was created and must meet the following publication standards: JPEG or TIF files sized to print no smaller than 3 x 5 inches at a minimum resolution of 300 pixels per inch; PowerPoint slides; EPS files generated from Illustrator (preferred) or Corel Draw. For other formats, provide program format as well as EPS file. Questions on graphics? Call (703) 805-4287, DSN 655-4287 or e-mail [defenseatl@dau.mil](mailto:defenseatl@dau.mil). Subject line: *Defense AT&L graphics*.

## Clearance and Copyright Release

All articles written by authors employed by or on contract with the U.S. government must be cleared by the author's public affairs or security office prior to submission.

Authors must certify that the article is a work of the U.S. government. Go to <<http://www.dau.mil/pubs/damtoc.asp>>. Click on "Certification as a Work of the U.S. Government" to download the form (PDF). Print, fill out in full, sign, and date the form. Submit the form with your article or fax it to (703) 805-2917, ATTN: *Defense AT&L*. *Articles will not be reviewed without the copyright form*. Articles printed in *Defense AT&L* are in the public domain and posted to the DAU Web site. In keeping with DAU's policy of widest dissemination of its published products, we accept no copyrighted articles. We do not accept reprints.

## Submission Dates

Issue	Author's Deadline
January-February	1 October
March-April	1 December
May-June	1 February
July-August	1 April
September-October	1 June
November-December	1 August

If the magazine fills before the author deadline, submissions are considered for the following issue.

## Submission Procedures

Submit articles by e-mail to [defenseatl@dau.mil](mailto:defenseatl@dau.mil) or on disk to: DAU Press, ATTN: Judith Greig, 9820 Belvoir Rd., Suite 3, Fort Belvoir VA 22060-5565. Submissions must include the author's name, mailing address, office phone number (DSN and commercial), e-mail address, and fax number.

Receipt of your submission will be acknowledged in five working days. You will be notified of our publication decision in two to three weeks.

<http://www.dau.mil/pubs/damtoc.asp>



